
THE CASE FOR TOTAL ABSTINENCE

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PRIZE ESSAY

BY

W. J. LACEY

Prize Essay

THE CASE

FOR

TOTAL ABSTINENCE.

BY

WILLIAM J. LACEY

AUTHOR OF "THROUGH STORM TO SUNSHINE," "A LIFE'S
MOTTO," "GIDEON HOOLE'S SECRET," ETC.

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TEMPERANCE PRIZE ESSAYS.

About two years ago the Committee of the National Temperance League received from the Executors of the late JOSEPH SANDERS, of London and Bath, a retired wine merchant, a legacy of £225 (less legacy duty) to be employed in offering premiums for the three best essays "in advocacy of the principles of total abstinence." The date fixed for the reception of MSS. was 1st January 1888, and at that time twenty-seven essays had been received.

The task of adjudicating upon their merits was undertaken by three vice-presidents of the League—Sir NATHANIEL BARNABY, K.C.B., the Hon. and Rev. Canon LEIGH, M.A., and Dr. BENJAMIN W. RICHARDSON, F.R.S., who met on the 14th November 1888, and awarded the first prize (£90) to Mr. W. J. LACEY, Chesham, Bucks; the second prize (£67, 10s.) to the Rev. E. R. BARRETT, B.A., Liverpool; and the third prize (£45) to the Rev. JAMES SMITH, M.A., Tarland, Aberdeenshire.

Three of the other essays—by the Rev. SAMUEL COULING, Mr. H. MAJOR, B.A., B.Sc., and Mr. GEORGE R. TWEEDIE, F.C.S.—were "highly commended" by the adjudicators.

33 PATERNOSTER ROW,
January 1889.



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THE CASE FOR TOTAL ABSTINENCE.

I.—INTRODUCTION.

GREAT reforms, as a rule, begin humbly. The way may be prepared for them by earnest and prolonged thought, by patient study of a problem which has grown more and more pressing. But they are not launched amidst the applause of an expectant world. Many humiliations fall to the lot of their pioneer advocates. Very slowly progress is made, and the stages are generally the same,—contemptuous indifference, ridicule, unbending opposition, merging into wide-spread questioning and increasing adhesion.

It has been so with total abstinence from intoxicating liquors. When the seven so-called fanatics of Preston—men ever to be honoured in temperance annals—set their hands to the first teetotal pledge, the movement was of puny proportions indeed. The most sanguine of their number can hardly have supposed that with that act they

were inaugurating a vast social and economic revolution. Yet this was the truth ; and the ball set rolling on Saturday evening, 1st September, 1832, has gathered, year by year and decade by decade, momentum and majesty. Only the wilfully blind fail now to perceive that it is likely to crash through every barrier of custom or prejudice, and to ultimately stem the torrent of drunkenness. It is a centre, a nucleus, round which temperance opinion of every shade has been slowly but surely consolidating. Under its shadow the forces have assembled, which, in assurance of victory, confront the national curse. It may be safely affirmed that the legislative concessions to temperance sentiment which are in the air, and cannot be much longer delayed however torpid the wills and apathetic the consciences of professional politicians, could never pass into the region of serious debate, much less become facts, but for the overwhelming testimony in impeachment of the grim alcoholic delusion presented by comparison between the tangible results of following the maxims of total abstinence and of subscribing to a vicious fashion.

And every man or woman who, by careful and unprejudiced consideration of the evidence on which rests the case against strong drink, is induced to become a total abstainer, brings strength to the side of reform, weight to the argument to which statesmen listen soonest, and a precious encouragement to the hearts of those who have been long in the work, fighting inch by inch an

enemy now thoroughly aroused to the life and death nature of the struggle. To obtain this help we attempt the present restatement of the grounds upon which the supremacy of intoxicating liquors is challenged. *Object of this treatise.*

There are certain objections which confront the temperance controversialist at the start, urged almost invariably by the pronounced opponent, and sometimes seized upon by the doubtful or the half-convinced, as offering available refuge from assault at close quarters. The story of Ulysses, who bade his warriors stop their ears with melted wax on nearing the island where dwelt the siren sisters, is capable now and again of reverse application to the phenomena of modern life. None are so deaf as those who will not hear. And there are many who remain impervious to the voice of conviction simply because they interpose the barrier of a gratuitous and misleading difficulty. Not thus is their responsibility diminished. *Initial objections.*

The proposed discussion is waved aside with the reproach that "teetotallers always exaggerate." In simple verity it cannot be so, except upon a supposition which it is the temperance advocate's aim to bring to the test of a rigorous examination—the supposition that total abstinence is a false cult, and that those who defend it and recommend it are fundamentally mistaken. The doubting one will not go the length of postulating that, and his semi-persuaded brother is debarred by the very *The charge of exaggeration.*

condition of his mind. If beneath this smoke there *is* fire, nothing can change the character of the devouring element ; and to talk of exaggerating its power, in favouring conditions, for mischief, of over-painting the havoc it has again and again effected, of misrepresenting the danger of allowing it to spread, is idle and absurd. Alcohol is either a poison or a food ; a friend or a subtle and treacherous foe. Tampering with strong drink in any form is either safe or perilous for the individual unit. The nation either suffers in reputation and in resources through its drinking habits, or possesses in the manufacture and sale of intoxicating liquors an innocent and a praiseworthy industry. There is no middle way between these antagonistic positions. No line of compromise can be laid down. The most skilled forensic ingenuity would be baffled in the endeavour to reconcile these rival views. And if evidence accumulating from all quarters, given by unwilling as well as by willing witnesses, proving to the hilt the charges made under each count of the indictment, crushing and inexorable in bulk, and rarely controverted in even the most trivial detail ; if this is forthcoming—as it is the aim of the following pages to show—what becomes of the protest on behalf of bated breath and whispering humbleness ? Facts make of it not a lawful arrest of judgment, but an excuse for moral cowardice. When men die daily of strong drink ; when hospitals, prisons, and asylums are

full of the victims of the colossal curse ; when to this evil source can be unerringly traced national impoverishment and social ills many and ghastly, there is a crying need for plain language, and the note of alarm cannot be struck either too loudly or too persistently. The exaggeration is on the side of the censors, who speak of peace when there is no peace. To estimate in excess personal or relative security is a more risky and reprehensible proceeding than to utter the earnest warning that is founded on knowledge, and perhaps on an agonised individual experience.

A second supposed palliation of indifference is found in the alleged fact that total abstainers plead for the acceptance of their principles on the basis of sentiment or in the name of an apocryphal commandment. Many statements are imputed to temperance advocates which in truth are malicious inventions of their adversaries, or at least are a colourable wresting of words and phrases away from their context and actual meaning. In this manner, any who desire to reason the question out on the lines of science—science medical, social, economic—are declared estopped upon the threshold by the failure of arguments that are not less imaginary than a tissue of absurdities.

*Other evasions
of the points at
issue.*

“ We know it all by rote ; we have heard it all, scores of times. ‘ We are our brothers’ keepers,’ —not in the sense you so kindly wish us to believe. ‘ The moderate drinker is worse than

the drunkard'—Humph! Briefly, we hold it to be nonsense."

And, thinking thus and speaking thus, the discussion is declined, the book is left unread, the friend is silenced.

*These dealt
with.*

Fitted into its proper niche, the appeal—which we intend to use—to deny self for the benefit of a brother or of the race, is both right and useful. There will be little left that is worth living for and the pessimist will indeed triumph over ruined humanity when the heroism of self-sacrifice is no more known, and when such persuasion shall have lost every trace of vitality. Few motives are intrinsically nobler than that which occasions the cheap sneer. Looking, however, upon the world as it is, and recognising the rarity of self-denial exercised in order to remove a possible stumbling-block out of another's path, the total abstainer anxious to propagate his principles might despair if this were his only plea. But it is not. It can be established that to safeguard bodily and mental health, and to reduce to a minimum the perils of accident there must be complete avoidance of alcoholic beverages. It is possible to show that strong drink unfits for prolonged bodily exertion, for endurance of extremes of temperature, and for sustained mental application. Proof can be given that in finance the supposed moderate drinker yields the lead to the total abstainer, being always a spendthrift to the extent of the money paid for wine, spirits, or malt liquors. These matters

claim the attention of the most careless. This chain of reasoning is calculated to bring into the safe ways of total abstinence all who share the fundamental race instinct of self-preservation. Surely it is folly for any to persist in a mistaken course and refuse enlightenment because some eager guide has submitted amongst many good and sufficient reasons for abandoning alcohol one or two that are termed quixotic in *Vanity Fair*.

Granting for the time being in the present essay that every individual is at liberty to select which of the two opposing policies he pleases, unhampered by any moral considerations whatsoever, we still affirm that enough remains to commend total abstinence to the unbiassed judgment as the only rule endorsed by prudence. Enough! The facts send the opposite scale flying to the beam. So far as the weight of evidence which should possess the power of convincing a juror is concerned, the trial can only end in one way. Science and experience do not speak with conflicting tongues or uncertain voices.

One further objection with which it is sought not infrequently to traverse the suit against alcohol at the very commencement it may be worth while to deal with in passing. There is in it a counsel of despair. The work of temperance reform is so vast, say the critics, that to attempt it savours of madness. The world is obstinately set on moving in the old fatal track, and remonstrance is wasted. At all events, the efforts of

*“Laisser
faire.”*

one man or one woman must be valueless, and the tyranny of custom forbids those efforts being put forth except at the cost of ease and popularity. The game is not worth the candle. The suggestion of personal danger in falling into line with the "moderate" drinkers is scouted. If the idea were less absurd these disciples of *laissez faire* would consider a deliberate insult to be conveyed in the hint, and would resent it accordingly. In this jaunty fashion the troublesome controversy is again and again dismissed.

Its dangers.

But circumstances are perpetually reviving and pressing home the question of the wisdom of continuing to play with edged tools. The gruesome phenomena of Intemperance daily challenge more careful reflection. Not a walk through the streets of a great city can be taken without a glimpse into the abyss of drunkenness. The daily newspaper cannot be read without the fact appearing that even the sometime favourites of society, the people who must once have believed themselves entirely safe do veritably trip and fall. Rank is not a barrier against this cruel disgrace, nor wealth, nor education. Whether the dread of contingent disaster is present or absent, the open door is there, and only total abstinence can shut it, and effectually banish a hideous hazard.

*The despair
gratuitous.*

Again, the fight is *not* hopeless. Great is habit, but the law of self-preservation—for the community, for the individual—may yet prove to be more powerful, and prevail. It is a matter of

common notoriety that an amelioration of the harsh tone once adopted by society towards the preachers and the followers of the new crusade has taken place. The water-drinker is now calmly tolerated, if not secretly sympathised with, in circles where a few years ago he would have been laughed to scorn. Opposition to alcohol has ceased to be an eccentricity in the eyes of men and women of the world. Temperance education has made notable strides, and a very large section of the majority who still cling to mischievous traditions are constrained to admit that the logic of experience is against them. The house of the enemy is divided against itself.

And one can perform the work of one in accelerating the progress of the reformation. The example of one is a force to be reckoned with. The antagonism of one to the drinking customs which impoverish whole peoples will never be despised by those who have read aright some of the most striking chapters in the history of humanity.

Thus the old platform is reached ; if there is solid truth in the arraignment of intoxicating liquors, then to avoid personal jeopardy, and to fulfil the duty to the State, which by a sure law reacts favourably on the individual interest, a policy of total abstinence is indicated. Is it not worth while at all events to search and see if these things be so ?

Whether or not it is possible to bring every

*A general
rendezvous for
the journey.*

reader to a common goal, or even to secure the company of the larger number over the various stages of the argument, this at least is feasible,—to invite all to set out from a common starting-point. Unanimity may once be secured. However diametrically different the intentions, the preconceived views, the wishes of some into whose hands these pages may fall, they will be practically agreed on the invulnerability of the foundation thesis of every word that comes after.

Condensed into a formula it runs thus :—

Temperance is the wise, safe, and God-given rule of life.

Amplified a little for the sake of greater explicitness, and a readier comprehension of the exact shade of meaning which it is desired to attach to the saying, it appears in a more involved sentence, not without that aversion of the rigid purist in style—a parenthesis.

Temperance, in the ordinary, plain, dictionary sense of the term (moderation, specially in regard to the indulgence of the appetites and passions), is a law of human life, by the heedful keeping of which the vital energies are conserved, the chances of worldly advancement incalculably increased, and mundane peace and happiness alone rendered possible; and for the breach of which nature visits punishment upon the body, the social constitution upon the estate, and conscience (by the agency of remorse) upon the spirit.

He would be bold to the verge of desperation

who should elect to controvert this statement. The champions of strong drink do nothing of the kind. They perfunctorily subscribe to it and style it a truism, as undoubtedly, and by frank confession it is. For all that, the sure overthrow of the tyranny of alcohol is involved in the thorough-going and universal acknowledgment of the real scope and imperative duty of genuine temperance.

As in so many other instances the *crux* of the controversy lies in the definition. It is necessary to ask for yet further enlightenment, What is true temperance?

But a favourite synonym—continually on the lips of liquor advocates—has been already conceded. Temperance has been said to equal and signify moderation. There shall be no attempt to evade any expostulation founded on this fact. Moderation as currently used, and temperance as generally understood, are to all intents and purposes interchangeable words. They have the same market value. They can be indifferently called upon to fill the same offices, and to bear the like brunt in an argument. To wrest one from its legitimate meaning is to tamper in spirit with the other. To rob one of its full interpretation is to defraud and pauperise its fellow. The defenders of the drink curse have not a whit better right to monopolise and set their hateful seal upon the phrase “moderation” than upon the term they more readily abandon to total abstainers. A temper-

ance man is the only honest and consistent teacher of the maxims of moderation.

What it is.

This is susceptible of easy proof. True temperance—*i.e.*, moderation,—is in its very nature a discriminating virtue. Trying all things by the best available tests it holds fast, and, according to the dictates of a sound judgment, uses, as is fitting and lawful, the things which emerge in triumph from the trial. Those against which reason pronounces are left, avoided, scorned. It is a contradiction in terms, and an affront to common-sense to speak of the temperate employment of agents of self-destruction. It gives a grotesque lie to an instinctive perception of what is wise and salutary to assert that there can be moderation in courting moral and material loss. Genuine temperance will as surely shun that which inquiry proves to be dangerous folly, as seek and find the happy mean in all lawful pursuits and enjoyments. That is an excess—call it by whatever alternative name convenience and propriety suggest—which by the agency of an unnecessary indulgence injures body, mind, and estate. And the laws of moderation are only obeyed where excess is eschewed. There is here a tight logical corner, and escape is only practicable by rendering the application of these tests irrelevant; in other words, by demonstrating the harmlessness of recourse to intoxicating liquors. Whoever fails in clearing the character of alcohol, or shrinks (as well he may) from undertaking the task, is precluded from claiming pro-

tection within the lines of the very strong fortress, moderation. And in the belief of the total abstainer any honourable opponent who, with a sincere desire to ascertain the truth, starts on a quest for evidence, either scientific or economic, to justify the drinking habit, and does not with quick chagrin abandon the search and evade the issue, is sure to return with a clarified understanding, and a conviction that alcohol is everywhere a curse and nowhere a blessing.

Having answered with an emphatic negative the important question, Can true moderation or temperance be compatible with even a limited and closely watched participation in the ordinary drinking customs of society? it is our business to show why alcohol ought to be placed under a ban by every self-respecting and sympathetic man and woman. We admit that it is very easy to be dogmatic, and to pass a sweeping censure. But we claim also the warrant of irrefutable facts for stern, unequivocal words. We claim that patient, honest research can only lead to the conclusion that strong drink is both useless and pernicious, impotent to aid, and mighty to injure and destroy. And our purpose is to substantiate these statements through the medium of some of the most pertinent available evidence. It is our confident hope to be able to conduct the open-minded, earnest-hearted reader by plain reasoning, founded on facts sad, terrible, and humiliating, to a decision for total abstinence; or, if that should

happily be already formed, to a determination henceforth to work more vigorously in extending the sway of temperance principles.

*Plan of
sections.*

It may be well to sketch our plan in advance.

Early consideration must be devoted to the nature and properties of alcoholic beverages. We propose to inquire into the antecedents of intoxicating liquors, and to prove that there is no *primâ facie* ground for regarding strong drink as—in the cant of a fast-dwindling school—"a good creature of God." It will be shown that the drink imposture has a tainted and an unclean beginning. Science throws a revealing light on not a few details which the friends of the liquor monopoly might prefer to keep in decorous obscurity.

Scientific tests.

From this initial stage of the investigation the transition will be easy and convenient to a survey of the evidence tendered by medical research. What science has to say of alcohol is of utmost moment in assisting the formation of a correct judgment in face of the drink problem. And science brands the drug—"traitor."

Science bears witness by her foremost representatives that alcohol is an enemy to health and longevity. The condemnation is confirmed by the verdict of general experience. Voices of students and observers in many lands, working on different lines, not invariably squaring practice with precept (it is a foible of preachers), unite in an imperative warning only to be disobeyed at

peril. Many proofs will be forthcoming that the minatory assertions of the best medical authorities are not a whit too strong for the needs of the case, but that the influence of alcohol is most lamentably and variously harmful upon both the bodies and minds of its dupes.

A glimpse of the reverse side of the picture must likewise be given. The physical and mental effects of total abstinence will require to be considered. What science has to say to teetotalism is the positive pole of the argument, and should be found to attract as surely as the other repels. In the early years of the total abstinence movement, there were difficulties to be confronted at this point. They have vanished. Objections once ignorantly deemed formidable have been shown, alike by the abstract proof won by the scientist in his laboratory and by the practical proof afforded by wide and protracted experience, to be but phantom lions in the path. Men do their work better, and with more ease and greater safety ; do harder work, and live to do more of it by shunning intoxicating liquors. The notion that in the use of stimulants is strength, has undergone fatal discredit at the hands of men who have performed marvellous feats of endurance *minus* this alluring resource. An imposing array, less of opinions than facts, awaits citation. It will be established that one of the surest known methods, other things being equal, by which the grand ideal of the *mens sana in corpore sano* can be reached,

*Abstainers
medically
vindicated.*

is by adopting in the life the principle of complete avoidance of strong drink.

In immediate succession it is intended to present the economical case for total abstinence.

*The economical test—
national.*

First, on the broad grounds of the national advantages accruing from the desuetude of intoxicating liquors, could this reform be brought about on an adequate scale. The borders of this great department impinge upon those of the sections already mentioned. Like the boundaries of some contiguous English counties, the provinces lap and overlap. It is hard to say precisely where the line runs. For, a robust and vigorous people but little tainted with disease means wealth and prosperity to a State. Deterioration in the average standard of health, from whatever cause, diminishes the national stock-in-trade, to employ a homely metaphor. Conversely, a rise (especially a marked and permanent one) in that standard would infallibly promote the economical well-being of the entire community. The day will come when statesmen and politicians will accord to this truth more than the casual and intermittent recognition which it wins from them now. But it is desired to show more particularly under this head that grievous national loss is sustained through the popular countenance of the common drinking customs, loss which when analysed is found to include—(a) waste of material; (b) waste of labour, human energies of brain and muscle producing only agents of destruction; (c) waste of

mental ability—drink—destroyed; and (d) waste of capital, even the direct leakage here being appalling, and the indirect passing the power of statisticians to calculate. A vast body of irrefutable testimony, accumulating from many quarters, can be laid under contribution to buttress the plain statement now deliberately put forth, that the measure of the nation's drink bill is the measure of the nation's improvidence. The difficulty will lie in the selection of evidence where all deserves attention and all points in the same direction.

And in the second place, the economical side of this question, as it affects the individual in each and every class, will be explicitly set forth. If the objection is urged in some quarter that after all it is not a personal matter, we shall have small difficulty in proving that the facts under review constitute food for most serious reflection on the part of every wage-earner and taxpayer.

*The economical
test—individual.*

To a thoughtful mind it is as patent as the presence of the sun in the heavens at noon-day, that the welfare of the whole body politic must have an appreciable relevance to the welfare of all its component parts. The nation is constituted of families and of individuals, and what is a perilous extravagance for the State is also detriment and risk for each separate household and unit. It cannot possibly be otherwise.

Working-men and working-women know this as surely as do the members of the ranks above them. They do not invariably realise the full sweep and power of the argument. They may not be in a hurry to embrace the logical conclusions to which it should conduct them ; but they perfectly understand that their homes are more comfortable, their pockets better lined, their credit and standard of respectability higher as total abstainers than as votaries of alcohol. And they instinctively feel that a reduction in the nation's drink expenditure would be for their benefit. This is one reason why in plebiscites on the liquor question thousands of votes of men who themselves drink—and even in numerous cases drink to excess—have been cast in favour of restricting the liquor traffic. And as the working-classes more and more comprehend that their most vital interests are menaced by the prevalence of the drink evil, it is reasonable to expect that they will be more than ever determined to veto the trade which thrives on the moral and material ruin of its supporters, and further, that in large numbers they will become recruits of total abstinence.

*Works of
mercy ; and
why so much
needed.*

Philanthropy will be next invited to enter the witness-box. Her evidence in corroboration of the indictment against intoxicating liquors will be of an uniformly sad and forbidding complexion. We are in duty bound to heed. Philanthropy goes her own way on her errands of succour and

help, and has her own motives for action ; but she maintains intimate relations with the two sister economies, Political and Social ; and there is no disputing that without her aid in enlisting the practical sympathy of the rich, the tax levied upon the whole nation for the purpose of counter-acting the mischief effected by strong drink would be even greater and more onerous than is actually the case. This fact may be usefully remembered by critics who demur at any threatened employment of emotional pleas, and cavil at every suggestion of partial responsibility for the misdeeds of alcohol. It must be shown that by this terrible agency of intoxicating liquors thousands of families are beggared annually, and their members forced to herd with the vicious and degraded in reeking city slums ; that the temptations which spring from a love of strong drink are mainly instrumental in maintaining in our midst an army of criminals and profligates ; that alcohol is a tyrant to the little ones, robbing them of the tender care that is their due, and even producing the hateful phenomena of child slavery.

In immediate succession we intend to devote a section to an endeavour to demonstrate the educational claims of total abstinence. The testimony received from social science and from philanthropy will have paved the way for an examination of this phase of the question, and will emphasise its lessons. On the very threshold of this section of our subject we are confronted

a Temperance and education.

with the painful and alarming spectacle of a vast assemblage of juvenile waifs and strays, children whose present condition is due to the drink curse, who constitute a peril to the State, and whose only chance of redemption from a career of ignominy and crime is, in the great majority of instances, a training in total abstinence principles.

There is danger to every one in intoxicating liquors. We shall try to show that there is double danger to the children, and to the children of drinking parents.

*Moral and
religious tests.*

Finally, a section will be devoted to the moral and religious arguments for total abstinence. Nothing that has been written heretofore can debar from a consideration of these aspects of a momentous question. To the man who refuses to be convinced except by pure reason, the cogent logic he asks will have been given. We shall claim to have established that from the narrowest and most selfish of motives, and on the simple ground of self-preservation, it is well to avoid tampering with alcohol. But we are under no engagement to pause at that point. There is a higher and nobler law to which appeal is indicated. Into this last Court we take our case, and expect to hear there a last and crowning verdict against strong drink, and for the safe, beneficent, and humane practice of total abstinence.

Hope.

Briefly and concisely sketched this is the plan on which the divisions which follow are drafted. The testing—the rigorous examination—of both

facts and conclusions is calmly challenged, in the strong confidence that inquiry can but lead to consent of judgment, to the discarding of a cruel and evil superstition, and to adhesion to a conquering cause.





II.

THE NATURE, CONSTITUTION, AND PROPERTIES OF INTOXICATING LIQUORS.



CHAPTER I.—UNITY IN DIVERSITY.

*Generic
resemblance of
intoxicating
liquors.*

“**A**LIKE even though unlike,” is a phrase that may be applied with absolute truth to the whole group of artificial drinks which severally possess the power—when taken in adequate and varying quantities—to produce intoxication. They have obtained different names; and some are bottled aristocrats which aspire to enter the palace and the mansion, whilst others remain on a humbler level, which will accredit them chiefly to the village tap-room or the city restaurant “bar.” But a very little inspection reveals the family resemblance. In essentials they are akin. They spring from the same evil stock, own the same attributes, exercise the same mischievous spell, and assert the same tyranny. Whether the form

favoured of the individual victim is champagne or bitter ale, port, brandy, porter, or whisky—whatever the spirituous liquor chosen, its prime constituent remains unchanged. The intensity of the peril may slightly vary; and this is the utmost that can be said. Even to this trivial admission must be added the rider that one enemy allowed peaceably to enter a fortress often prepares the way for more implacable comrades. If all are foes, best keep all at a distance. And the reality of the peril can in no instance be permitted to escape observation.

The intoxicating element is present in every form of strong drink, and is what was once generally, and is still sometimes termed “spirit of wine”—*i.e.*, alcohol.

The delusion exists in some quarters that there is a radical difference, and even dissimilarity, between spirituous liquors—by which in this connection, brandy, whisky, gin, rum, and the like only are meant—and the various intoxicating beverages grouped together under the designation of malt liquors. A notion exists that distillation effects a fundamental alteration in the composition and quality of the drink. It is an error. The difference is purely one of degree—of quality and proportion. Ardent spirits, as they are termed, are unquestionably more powerful agents of mischief than the lighter ones, or than ale or beer; but it is simply because they are subject to less dilution when handed to the purchaser in this *A common mistake.*

form. The absolute alcohol of which they so largely consist is present just as surely, though in its restricted measure, in every species of wine or of malted liquor. The self-same drug lurks in sherry and in stout as is consciously expected to declare its presence in rum or gin. Only, in the former instances it is more thoroughly disguised.

It is by no means infrequent for the advocate of total abstinence to be met with the defence: "But after all I am merely a beer-drinker; spirits I never touch." And the fact is held to vitiate every argument, and render superfluous every warning. Unmask the whole truth, and the insufficiency of this shield becomes abundantly patent. The imagined fact is only a fact in the technical letter,—as the words are currently accepted. The beer-drinker is inevitably an alcohol-drinker. If alcohol is deleterious, he must suffer in his own degree.

"Pure Beer."

No effort can be wasted, no seeming redundancy of language can be valueless that shall make this initial point clear, for, in these days, advanced as in many respects they are, yet another anti-temperance delusion appears to be coming to the fore. A panacea for the cure of intemperance is gravely offered to the public in the shape of an agitation for Pure Beer! The paradox in that phrase shall for the moment pass without challenge. And it is easy to understand what is meant by the term, and what is the aim of the would-be reformer. It is even possible to allow

the object and the enterprise to be both lawful and laudable on the part of those who are still in comparative darkness, and yet in their inmost souls revolt against the ruin and the degradation which they see overwhelming the English masses through devotion to malt liquors. Beyond question a totally gratuitous wrong is done to myriads of alcohol's dupes by the purveyors of strong drink who, in avaricious anxiety to get larger and larger gains, adulterate with other poisonous ingredients the disaster-working contents of cask and barrel. The honour of "the trade" would seem from proposals of their own friends to be of dubious quality. The night must be Egyptian when outcry arises in the tyrant's house.

But the reform would be futile even if there *A puny reform.* were a satisfactory chance of accomplishing it. Those who advocate it and rely on its fair promise overlook, wilfully or otherwise, the cardinal factor of the problem. The sophistications of a thing already treacherous and evil, deserve rebuke and call for interposition. But relieved from their presence alcohol would remain, and short of the elimination of this drug from the economy of diet there can be no tangible hope of stopping the plague of drunkenness. The identical ardent spirit which forms the "fire-water" of the miserable aboriginal peoples whom it is cursing into oblivion, would linger in the foaming glass, and be the real basis and *raison d'être* of the purest beer that these kindly folk would ever desire to

brew. Thier scheme for redressing a too patent wrong is pitifully inept. They would patch a threadbare superstition, whereas the crying need of the hour is that that mischievous faith should be utterly destroyed.

Of course no abstainer disputes that the question of the precise degree in which alcohol is present in any particular intoxicant will determine the extent of the peril stored therein. British wines are weaker and consequently less mischievous, in proportion to quantity, than the wines professedly imported from Spain or Portugal. The "small ale" satirized in rustic rhymes, is comparatively innocuous in comparison with "Best Burton." But it must not be forgotten that the difference is not *in kind*, and that alcohol, in whatever beverage it is encountered, is inimical to the well-being of the drinker. Absolute immunity is only possible by the practice of total abstinence.

Comparison between some kinds of intoxicants.

Chemical analysis proves our point. According to the official tables of the Food Department, South Kensington Museum, the following is the composition of, respectively, an imperial pint of brown sherry and claret, brandy and common gin, pale ale and London porter. The selection is made with the view of presenting to the reader's notice at a glance the ingredients of one of the most familiar wines, spirits, and malt liquors at each reverse end of what may legitimately be called the danger scale in the three several classes :—

	Water.	Alcohol.	Sugar.	Tartaric Acid.
Brown Sherry,	15½ oz.	4½ oz.	360 grs.	90 grs.
Claret,	18 „	2 „	...	161 „
Brandy,	9½ „	10½ „	80 „	...
Gin (com. retail), 16	„	4 „	½ oz.	...
				Acetic Acid.
Pale Ale,	17½ „	2½ „	240 grs.	40 grs.
London Porter, 19½	„	¾ „	267 „	45 „

It must be borne in mind that these tables refer to the specimens of the several alcoholic beverages deposited with them in the Museum, and that other examples of nominally the same liquors might, and probably would, yield the analyst slightly different results. But broadly taken they are accurate, and they sufficiently point the moral of this chapter. Estimating not by weight but by volume, which perhaps is a method that more forcibly impresses the facts upon the average imagination, we may state that brown sherry contains from 20 to 25 per cent. of alcohol, and claret rarely so much as 10 per cent. That, speaking roughly, brandy is about half composed of absolute spirit, while retail gin contains something less than 25 per cent. (Best gin ranks much nearer to the maximum end of the danger scale.) And that an analysis of pale ale and London porter exhibits in the one case about 11 per cent., and in the other 4 per cent. of alcohol. These figures are approximate throughout the list, for here and there adulteration may step in, or a particular liquor may be either watered below the usual

standard or fortified, that is to say, brandied, above it. But we repeat that they give a fair representation of the truth, and are not likely to be seriously challenged. And this, at all events, they establish, that the drug for which the confirmed tippler craves with all the energy of a diseased nature is absent from none of these beverages.

*A preliminary
finding.*

Unity in diversity. There are in existence varieties almost numberless of intoxicating liquors—wines from nearly every clime and country, of ever-varying degrees of strength, of names familiar and names uncouth, as contrasted in flavour as in price; spirits, and liqueurs, and ales, and beers in bewildering procession. But the man who drinks to excess of one or of another will be intoxicated by the deleterious agent which is common to them all. His powers of mind and body will pass under the domination of *alcohol*. It follows that if there is a righteous objection to one form of strong drink, there is to every form thereof. The evil consequences of indulgence may be less marked so far as physical and mental vigour is concerned when the standard of alcohol in the intoxicant specially favoured is low, and when the fiery spirit is largely saturated with water; but the power to work harm is present so long as alcohol is in evidence.

CHAPTER II.—THE ORIGIN OF ALCOHOL.

TREES are tested by their fruits, and hill-side springs by the purity of the running streams they replenish. We look to establish the case for total abstinence by a similar test. But it is sometimes advantageous to trace the present back into the past, to ascertain the tree's essential character and discover the brooklet's source. The parallel does not fail us when we turn aside from the depressing outlook over the drink-blighted fields of human industry, and proceed to study the antecedents of alcohol. The seeming delay is not wasted time. The shock is broken of the interference with ancient traditions and inherited beliefs when the advocate of total abstinence is able to point to a beginning of alcohol which is singularly consistent with its after-career of treachery and mischief, and to say, "Study carefully this spectacle of a poison evolved from shattered and decaying sugar; this is the birth of alcohol." *Preliminary disclosures.*

There is ample justification for the challenge. Concerning the informing spirit of strong drink the words of a licensed jester (*Punch*) may be quoted:

"To matters organic it owes its production,
Through decomposition in states of destruction;
From various causes of chemical action,
Thence comes fermentation—in short, putrefaction."

Song and romance have cast a deceptive halo about the ruby wine-cup and the foaming tankard, but a glimpse at the origin of alcohol makes short work of poetic illusions. Fancy may dream ; the reality is hideous prose.

*A wide field
for conjecture.*

Into a discussion regarding the antiquity or the historic origin of wine—the first intoxicating liquor which the world saw produced—or of the many collateral problems which readily occur, it is unnecessary to enter. The cause of practical truth would be little served by a full and reliable solution of every enigma outstanding in this department. The region is one governed mainly by surmise, and our quest is for facts that have been abundantly verified. One guess alone shall be borrowed from the fine selection offered by enterprising students.

Fermentation.

It is that, acquaintance with the properties of wine came first by accident. The probability of this is so strong as to approach reasonable assurance. But for all that, it cannot be written down as certitude.

But something is proved by philological evidence. The words *ferment*, *fermentation*, were invented ; springing from the Latin root *ferveo*, to boil, and clearly finding their application in observed appearances of those changes in the constitution of grape juice that ultimately produced—wine. We therefore have it that those who first called a then mysterious process by the new word, looked quite justly on the meta-

morphosis as a *fever* of the juices of luscious fruits.

By fermentation—which is nature's method of disorganising in due season, according to her economy, superfluous vegetable substances—came wine; from wine was derived, through the medium of man's discovery of distillation, the ardent spirit which, freed from its disguises in the wine, is designated, alcohol.*

The leading inquiry in the present chapter then must be, In what does fermentation consist? A *Dictionary definitions.* detailed answer is required, and from Walker's Dictionary and the more modern and popular Nuttall's (two authorities that cannot be accused of bias) we extract at starting two closely parallel definitions. Walker pronounces fermentation to be: "A peculiar decomposition of certain bodies, whose particles are in a state of unstable equilibrium, by contact with a body in a state of progressive change." Nuttall's regards fermentation as, "Originally the decomposition which takes place in dead organic matter when exposed to the action of moisture and air under a moderate heat, now properly a change of the like kind which takes place in an organic substance not naturally liable to it when acted on by a body in the above state of decomposition, hence called a ferment," (Nuttall's, ed. 1886).

Both these explanations show that the meaning *Germ theory.* of the word has considerably widened out since it

* See Notes.

was given to the agitation, so like to boiling, visible in the case of fermenting grape juices. The truth is, that science has conveyed the term into her vocabulary and, after using it temporarily with too great latitude to denote every change in the constituent particles of dead organisms has now deliberately limited its employment to specific alterations in organic substances. The statement has an ugly sound, but there is every reason to believe that in each instance the change is brought about through the medium of those very micro-organisms which are the study, in one shape or another, at the present moment, of some of the most acute scientific investigators of the age. Koch, and Pasteur, and Klein, and their comrades, by their researches into the nature and office of the *bacteria*, are doing much to exhibit the path of the destroyer, and are helping to vindicate the conclusions of advanced temperance inquirers. The microscope fights the battle of total abstinence. It is likely to prove beyond possibility of dispute, that the originating agent of the particular kind of fermentation which issues in the production of alcohol is one of the multitudinous army of germs that comprise in their dread ranks the ultimate material causes of fevers, of cholera, and even of hydrophobia. These microbes serve a purpose in the economy of nature. They break down and destroy, in order that the forces which make for life may rebuild and renew. And they are nature's scavengers. It appears to

be a law, that no putrefaction can take place without the aid of these organisms. Their record is one of decay and destruction.

Ferments are many. The word, in its current application, stands for those forms of organic matter which seem to grow putrid of themselves. Germs that reach these substances through their contact with the air doubtless cause the change, but the naked eye is unable to discern this. To the unenlightened observer, the "fever" appears to have arisen spontaneously. A ferment, then, is the visible rotting force which affects naturally susceptible bodies with a like decay; and the action thus set up is fermentation. *The nature of a ferment.*

With respect to the kind of fermentation which is the origin of alcoholic liquors, and from that circumstance has obtained the name of vinous fermentation, three highly important truths may be predicated. First, that whether or not a microbe launches the affected substance on its downward career, there comes as part and parcel of the process of disorganisation a living fungous growth. This is known as the *torula*, or *saccharomyces*, and has been ably defined as "a rudimentary plant, composed of cells, which when placed in a suitable medium actively multiply, living at the expense of the medium in which they exist, and ultimately changing its character" (Dr. Smart). Even scientists—to wit, Liebig and Bergelius—were at first slow to recognise the plant nature of yeast, but research proved the point. *Vinous fermentation.*

that to-day the bulk of those who are engaged in the business of producing alcoholic (or vinous) fermentation, understand that they are dealing with a living organism—closely allied to various kinds of mould and mildew which are not as successful in imposing on the credulity of the world as beneficial agents. The brewer or the brewer's man looks upon the thick creamy froth that rises to the surface of his vat, without realising that he is in the presence of exuberant though death-nourished vegetation. Yet this is the fact. It is to be noted in passing, that the *torula*, or yeast plant, multiplies by gemmation. Its cells literally bud, and thus produce other similar cells. Under favouring conditions the development is swift.

“*Shattered
sugar.*”

The second of these three truths is: that the *torula* exists and spreads, and does its work of manufacturing alcohol—in company with a small quantity of glycerine, carbonic acid, &c.—by destroying sugar. This is the secret of the momentous chemical change. It is always the decomposition of a food and the recomposition of a deadly poison. Given the grape juice or the infusion of malt for the *torula* to influence and feed upon, and the same unvarying process will effect the same continually repeated ruin, and bring into existence the same agent of yet darker mischief. It is the saccharine element in either the grapes or the mashed malt which, shattered by the fungous growth that warmth has excited into activity, yields, in lieu of itself, alcohol and

three other substances. Without the disintegration of the sugar in the first instance, there could be no intoxicating wine or beer in the sequel. Surely we may pause here and invite any reader who is not a total abstainer to reflect, and to weigh well these indubitable facts. Strong drink depends for all its attraction on a spirit which has escaped from one of nature's charnel houses. Rotted sugar is the origin of ethylic alcohol. A remaining point needs to be made clear. It is sometimes blandly argued that if alcohol comes from sugar, alcohol must needs have been present in the sugar; that sugar could not give forth what it did not contain. The contention is only really plausible in the ears of the unthinking or ill-informed. Like causes bring about like results. Alcohol will intoxicate; sugar, as sugar, will not. The logical inference is, that alcohol and sugar have nothing in common. Except organic changes shall befall the latter, it will remain a nature-provided food; and alcoholic beverages will remain man-provided poisons. Moreover, the student of chemistry sees nothing to occasion surprise in this breaking up and reshifting of parts. It is going on in every direction, though rarely is the transformation accomplished so terrible in its ulterior consequences.

The third cardinal point to which we desire to call especial attention at the present stage is this : *A double change.* that *glucose*, or grape sugar, alone, out of sundry samples that might be enumerated, offers to the

manipulator the possibility of alcoholic fermentation. Other substances require to be converted into *glucose*, or grape sugar, as a half-way house to their complete degradation. It is so with starch, the element in barley which renders the grain servicable for the ignoble purposes of the maltster and brewer. And here enters a new ferment called *diastase*. The germination of seed generates *diastase*, and *diastase* in quantity almost so insignificant as to pass without notice by the uninitiated, is capable of changing starch into grape sugar. To achieve this feat is the object, the mystery, of malting. Malt is nothing more nor less than grain set to grow in water and on its so-called "couch," and then checked in its growth on the "floor," and arrested totally on the kiln. Bruised, and steamed, and soaked, and beaten, it yields sugar; blended with more grain, its own *diastase* is powerful enough to act on this also, and more sugar is yielded. And now there is a basis for the other fermentation already described, and the evolution of alcohol takes place. So the golden grain that is a delight to the eye as it waves upon the pleasant field, and that should provide food for the hungry, passes under the wand of death, and by misapplied human ingenuity, becomes a minister of death.

This is the genesis of alcohol.* From an evil root there springs an evil tree; from a polluted fountain there flows a black and poisonous stream. Chemical science commends teetotalism.

* See Notes.

CHAPTER III.—A PEEP BEHIND THE
SCENES.

TOTAL abstinence is likewise indicated as the policy of caution and true wisdom by a consideration of numerous other secrets in the manufacture and sophistication of intoxicating liquors. But before entering upon this interesting, instructive, and sometimes grimly amusing topic, it will be well to treat briefly of distillation, the process by which ardent spirits—as sold over counters and at gin-palace bars—come into being.

The great antiquity of wine has been inferentially recognised. Beer is said to have been first brewed by the ancient Egyptians, and has certainly come down to these days from very remote times. And for centuries wine and the various alcoholic beverages which are now classed as malted liquors, were drunk, and no questions asked. What was the essential principle that marked these artificial drinks off by a deep, broad line from water or from milk was not very speedily discovered. The division between intoxicants and non-intoxicants was unmistakably there, and knowledge had no other word. But at last the invention of distillation took place, and endless opportunities of investigation opened out. The spirit that was in wine stood revealed, and research into its chemical antecedents and annals

*Dense ignorance.**Distillation of spirits of wine.*

was practicable. Albucasis, an Arabian chemist of the eleventh century, commonly receives the credit of opening the then fast-shut door, and of first placing wine in the alembic. Probably to his surprise, he found that the fluid was susceptible of division into the powerful spirit named after its ostensible source, and water.

“*Alcohol.*”

Not until, perhaps, some six hundred years later still—in the seventeenth century—was the new name conferred—alcohol. There is debate as to the name’s origin, but the balance appears to incline to a derivation that is historically fitting. The word is said to be taken from the Arabic, *a’l-ka-hol*, a subtle essence or powder, with the cosmetic properties of which Eastern beauties were intimately acquainted.

*The process of
extracting it.*

Distillation, then—properly employing the term—is the means by which an approach to absolute alcohol is obtained. Its principle is simple. Where different fluids are blended, distillation separates them. Subjected to a suitable degree of heat, lighter fluids rise in the form of vapour, and can then be condensed into individual liquids. Alcohol becomes a vapour at heat forty degrees lower than water, and by experimentally utilising the knowledge of this fact, its disguise of an innocuous fluid can be partially removed. Only partially on a first or second attempt, however. Water is powerfully attracted by this bad companion, and the product of even a second distillation gives rectified spirits of wine, but not quite

pure alcohol. More stringent chemical means, such as the use of quick-lime, must be adopted to compass the latter.

But distillation, as the word is ordinarily used *Manufacture of ardent spirits.* in discussing the drink question, has very often a more generous breadth of meaning. It covers every stage of a process which, starting with bruised grain, gives at the end a highly alcoholised beverage, well styled by the savage who talks in pictures—"fire-water." The brewer would allow the alcohol to remain in a state of comparative diffusion in the liquor he has manufactured, and as the informing spirit of ale, or beer, or stout, it has already abundant might for mischief. But the distiller is not satisfied. He has customers who insanely demand for jaded palate and flagging nerve a yet sharper, swifter stimulus. And so by the agency of the still he refines away (the expression is a handy paradox) more of the harmless water, and finally turns out the finished article to become a scourge to society.

Having thus glanced rapidly at the *rationale* *Raw material.* of distilling, the path is clear for examination of some curious sources of alcohol—and consequently of ardent spirits intended for human consumption,—of some strange "blends" in the market, and of sundry triumphs in the art of adulterating intoxicating liquors. Alcohol is to be got from many substances which the uninitiated would little expect to find pressed into this dark service. All the cereals will yield it through the medium of

diastase. All fruits and all vegetables can be strained upon for the necessary raw material. Rice, milk, the juices of trees, molasses, madder, potatoes, lint, give it; and methyl-alcohol (which is the result of the distillation of wood) has been obtained from smoke!—from the gaseous matter vomited forth by charcoal-fed furnaces (*Louisville Medical News*, 17th March, 1883).

A huge deceit.

There is worse to follow. Not only is it impossible for the dram-drinker to be sure that the alcohol in his glass is evolved from the shattered sugar, or starch-sugar, of grape or grain, but in the face of the report of skilled and official analysts, and of astounding revelations from members of the liquor trade, he may have grave doubts if the alcohol itself is not superseded by a still more deadly poison, perhaps by a combination of poisons. At very least its action is likely to be emphasised and seconded by sinister alliance with other dangerous drugs. The current state of affairs in the degrading business of selling the world its alcoholic beverages was neatly and justly summarised by an American witness thirteen years ago. Not a phrase needs revision. In “Alcohol and its Physical Effects,” Colonel Dudley says: “With few exceptions the entire liquor traffic of the world is not only a fraud, but—perhaps without all the dealers being aware of the fact—it amounts to a system of drugging and poisoning. The business of making adulterated liquors has been so simplified that any novice . . . can learn

in a short time to make any kind of liquor, that will pass muster with nine-tenths of the community." According to "Smith's Classical Dictionary," the ancients "cooked" their wines by the addition of—amongst other things—sea-water ; turpentine, either pure or in the shape of pitch ; resin ; lime, as gypsum, burnt marble, or calcined shells ; inspissated must ; or various herbs, gums, and the like. But the moderns far surpass them in hardihood, and—the language is scarcely an exaggeration—in fiendish ingenuity. Whisky is adulterated with sulphate of copper and sulphuric acid ; sour wine is redressed with sugar of lead ; ales and beer are "mended" with tincture of grains of paradise. In *Longman's Magazine* for August, 1887, Dr. B. W. Richardson quotes the following trade receipt for a mysterious operation called "beading" ardent spirits: "Oil of sweet almonds, one ounce ; oil of vitriol, one ounce. Rub together in a mortar, and add by degrees about two ounces of lump sugar, rubbing well with the pestle until it becomes a paste. Then add small quantities of spirits of wine until a thin liquid is formed. This quantity of beading is sufficient for one hundred gallons of gin, and will cause the spirits to carry a fine pearly head when drawn from a little height into a glass." The proverb says that there are tricks in all trades, but the liquor business is surely a trade of tricks—delusion its alpha and its omega.

Ancient adulterations.

Modern adulterations.

But the list is far from closed. The spirit last

mentioned (gin) is sometimes strengthened with sulphate of zinc. Copperas is not unknown in malted liquors ; and, as rival substances for the essential bitter of hops, the brewer now and again uses nux vomica, or strychnine, or wormwood, or gentian. Sometimes cocculus indicus is present.

A. Fournier states that of thirty-six specimens of spirits and brandy seized by the police in the Faubourg of Rouen, twenty-one contained sulphuric acid and five acetic acid.

Mr. Gough, in "Sunlight and Shadow," gives, from a technical treatise hardly intended to fall into the hands of a total abstinence advocate, a most formidable catalogue of the substances variously relied upon to make saleable (and profitable) intoxicating liquor. Amongst the items, and in addition to many already noted, are these :—

Mixed wares.

"Alum, fusel oil, heavy oil of wine, ammonia, ambergris, sweet and bitter almonds, oils of sweet and bitter almonds, cardamom, bone black (namely, animals' bones burnt and ground), balsam of Peru, catechu, caustic potassa, cubebs, slippery elm bark, eggs for fining, sulphuric, nitric, and butyric ether, flax-seed, gamboge, honey, oak bark, oat-meal ; long, cayenne, and black pepper ; pellitory, snake-root, sweet spirits of nitre, tea, quassia, sassafras and wintergreen, creosote and turpentine. For colouring : alkanet root, red beets, Brazil wood, cochineal, indigo, logwood, red sanders wood, and saffron." And still people go on drinking these decoctions !

Probably it will be well within the mark to *False labels.* affirm that nine-tenths of the quantity of wine disposed of annually is in one way or another a fraud. And this quite apart from the question now in suspense as to the value or worthlessness under any given conditions of alcoholic beverages. The fact is notorious that vastly more wine labelled "Port" is sold than all the vineyards of Portugal produce; that a very large quantity of "Champagne" is consumed which is totally innocent of the remotest connection with grapes grown in that beautiful French province; that the bulk of so-called foreign wines carry fictitious labels, and are in reality manufactured when and where and how convenience bids. The maker knows this, and brazenly out the circumstance. What would you? There is the law of demand and supply. Who is injured by a conventional understanding?

Again, an overwhelming proportion of wines *False strength.* is admittedly "fortified." This is another practice for which the impudent excuse is tendered, that every one is or might be aware of the truth. This particular kind of trickery is a recognised branch of the wine-producer's profession. Wines in which the percentage of alcohol is naturally low are fortified up to 25 per cent., or even more, by the addition of brandy or another strong spirit. There is mischief in it, for the taste for alcohol grows by what it feeds upon, and the drinker of highly alcoholised wines seldom retraces his steps

to simpler and less harmful specimens. Usually he advances in the contrary direction, seeking more persistently for a liquor which shall "bite" the palate, and administer swift stimulus to his heart and brain.

And, in addition, wines are being secretly adulterated in the manner and by the means previously shown. There is thus in a multitude of instances a twofold deception—wines made in one country are disposed of as productions of the vintage of another, and they are chemically concocted with most dangerous ingredients when they purport to be the result of the fermentation of grape juice.

Spirits are no purer. They are "mixed," "compounded," "blended," "beaded," until it is all but a hopeless search to find the genuine article, intrinsically evil as that is. Distilled potato spirit is a noble "basis!"

Improper ingredients in beers.

Beers, porters, and ales are most commonly diluted with water, and then "refreshed" with treacle and salt. We have pointed out the favourite substitutes for hops, and in this connection it is worth mention that the exceedingly poisonous *cocculus indicus* berry is, by official returns, reaching England in continually increasing quantities. Its purpose, on the authority of the *Lancet*, is, to be put into malt liquor, to give it strength and hardihood. "And this notwithstanding the fact that," says the same paper, "a viler agent could not well be introduced into beer

than the berry, the stupefying effects of which are so well-known that it is frequently used to kill fish and birds."

The effect of these various drugs in conjunction with alcohol is seen in many a wrecked constitution. With Solomon we may ask, "Who hath wounds without cause?" The hidden mystery of not a few diseases—deaths—would probably, if all were disclosed, appear lurking in the extra abominations of sophisticated strong drink. The picture we have sketched is not over-drawn, and we have every counsel of prudence on our side in appealing to hitherto non-temperance men and women to have nothing further to do with this complex curse.

*Danger in
these adul-
terations.*



CHAPTER IV.—THE PROPERTIES OF ALCOHOL.

"I NEVER suffer ardent spirits in my house, thinking them evil spirits. Spirits and poisons mean the same thing."

These are the words of the eminent surgeon, Sir Astley Cooper, and they are abundantly justified by the results of experiment and observation. The properties of alcohol are essentially toxical properties, and the fact cannot be hidden. Definitions of a poison are many. Walker's Dictionary affirms that a poison is "that which destroys or injures life by a small

*What is a
poison?*

quantity, and by means not obvious to the senses." Webster says it "is any agent capable of producing a morbid, noxious, or dangerous effect upon anything endowed with life." Nuttall's edition of 1886 describes a poison as "that which is destructive or injurious to life; that which taints or destroys moral purity or health." Every shade of meaning here included is required to paint the character of alcohol.

The power of this drug to destroy animal life was conclusively shown by the experiments of Dr. John Percy, the results of which were placed before the scientific world in 1839 in a valuable essay on "The Presence of Alcohol in the Ventricles of the Brain."

*Experiments
by Dr. Percy.*

Dr. Percy injected about $2\frac{1}{2}$ oz. of alcohol into the stomach of a full-grown spaniel bitch, and the animal immediately expired. "Never," remarks the investigator, "did I see every spark of vitality more effectually and more instantaneously extinguished." Prussic acid would have killed in an exactly similar manner. In a further experiment with a larger dose (8 oz.) administered to a powerful bull-terrier bitch, death seemed to supervene almost as quickly. But in this case there was subsequent partial recovery, the initial collapse not being really total. The victim, however, gradually sank, and died about eight hours after receiving the alcohol. Examination disclosed the significant fact that the fatal action of the poison had been of an *irritant* character, causing violent

inflammation of the lining membrane of the stomach and intestines. This animal would probably have survived the narcotic effects produced by the poison. Again, 6 oz. of alcohol were injected into the stomach of a large mongrel dog, and here the issue was fatal, from narcotism, in an hour and twenty minutes.

And these decisive tests of Dr. Percy's have been supplemented by experiments of many home and foreign scientists on cattle, animals of many species, birds, and even leeches and fish. The whole body of this evidence proves the deadly nature of alcohol.

Where the drug has not been administered in sufficient quantity to cause speedy death, it has invariably produced painful and dangerous results. The experiments of Dr. George Harley, as one of a special commission appointed by the French *Société de Biologie* to inquire into the phenomena of diabetes, show that alcohol can bring about in its capacity of a poison formidable functional disorders. Dr. Harley injected into one of the mesenteric branches of the portal vein of a large retriever dog half an ounce of alcohol, mixed with the like quantity of water, and found that in three hours the animal was markedly diabetic.

The melancholy testimony that is often forthcoming from Coroners' Courts forbids any one to believe that the consequences of great alcoholic excess can be safely sustained by the constitution of man. Again and again we hear of death

*And of Dr.
Geo. Harley.*

directly resulting from large doses of strong drink. One such case was chronicled in the *British Weekly* newspaper of 19th August, 1887. A Scotch slaughter-house "hand," in Edinburgh, drank for a wager ten glasses of whisky in five minutes, and perished.

To proceed. Poisons may be irritant—causing inflammation of the surfaces they come in contact with; or narcotic, diminishing sensibility of the brain and nervous system; or may possess these qualities in combination. And alcohol is a narcotic-irritant poison. Professor Christison, an authority of acknowledged eminence, whose "Treatise on Poisons" is likely to remain for long a standard work, describes alcohol as: (1st), a local irritant; (2nd), an astringent; (3rd), a sedative; and says, moreover, that "alcohol contains a powerful narcotic poison."

Science insists that alcohol shall figure in forbidden company.

Professor Pereira states: "The local effects of alcohol, or rectified spirits, are those of a powerful irritant and caustic poison. To whatever part of the body this agent is applied, it causes contraction and condensation of the tissue, and gives rise to pain, heat, redness, and other symptoms of inflammation" ("Materia Medica").

Dr. John Chadwick, in "An Essay on the Use of Alcoholic Liquors in Health and Disease" (Lond. 1849), observes that this drug, taken in sufficient quantity, "acts as a poison, and may

*Statement of
Professor
Christison.*

*Evidence of
Professor
Pereira.*

*Dr. J. Chad-
wick.*

produce death in a few minutes, or in the course of some hours, from the time of taking it ; and, when taken in small quantities for a length of time, tends to shorten the duration of life, and may produce many different diseases which terminate in death."

Sir Andrew Clark says "alcohol is a poison," and ranks it with strychnine, arsenic, and opium. *Sir A. Clark and Dr. Harley.*

Dr. George Harley, Ex-Professor, University College, London, lecturing before the Society for the Study of Inebriety, 23rd November, 1887, premised that alcohol, like "other toxic agents," affects individuals proportionately to quantity ingested, and to conditions of age, sex, and constitution on the part of the subject, and said :

"In all persons, alcohol, when taken in large quantity, acts as a cerebro-spinal nerve paralyser—inasmuch as it suppresses every function of the brain, cerebellum, and spinal cord. . . . The ultimate effect of alcohol in large quantity, is not only to completely comatose, but to kill, precisely with the same chain of symptoms as every other true narcotic poison does."*

As a witness that the general drinker does really suffer from the toxic properties of strong drink, we quote Sir William Gull. Before the Peers' Select Committee on Intemperance (1877), the famous physician used these words : *Testimony of Sir W. Gull.*

"I should like to say that a very large number of people in society are dying day by day, poisoned

* See Notes.

by alcohol, but not supposed to be poisoned by it. . . . I do not see the good of leaving off drink by degrees. If you are taking poison into the blood I do not see the advantage of diminishing the degrees of it from day to day. That point has been frequently put to me by medical men ; but my reply has been, 'If your patient were poisoned by arsenic, would you still go on putting in the arsenic?' I should say from my experience that alcohol is the most destructive agent that we are aware of in this country. . . . It is one of the commonest things in English society that people are injured by drink without becoming drunkards."

*Stimulant and
narcotic.*

What is the *modus operandi* of "the demon drug"? In the answer to this question is the secret of the drink's awful fascination. Alcohol is a pseudo-stimulant. Remove the stimulating property out of a bottle of champagne or a tumbler of bitter ale and no one would drink the vapid remainder. At a first glance narcotics and stimulants may seem to have nothing in common. There is even a certain superficial antagonism between the ideas respectively conveyed to the uninstructed mind by the two words. Yet as a simple matter of fact all narcotics are stimulants, and all stimulants are narcotics. This can be seen in the case of alcohol. An insignificant dose stimulates, a large dose narcotises. Says Dr. J. M. Howie : "Stimulant and narcotic effects are not independent phenomena produced by two different classes

of agents—both being the necessary effects of the same class of agents, and both being manifested in an invariable sequence, so that stimulus always precedes narcotism, and, more or less, narcotism invariably follows stimulus.”

“Stimulants,” declares Sir Benjamin Brodie, “do not create nerve power, they merely enable you, as it were, to use up that which is left.”

In these plain statements science reveals the truth concerning the action of alcohol. The poison does not increase force, though it may release it; and the result of imbibing intoxicating liquors is the phenomenon of narcotism in greater or less degree. Nature at first responds to the lash of the toxical agent like a steed to the whip of a reckless driver; but soon flags, fails, and sinks into lethargy. Unless a reawakening comes to the benumbed powers, that ill-omened sleep is one of death. Thousands have entered the spirit-world through this dark and dreadful porch. Alcohol strikes at the centre of nerve-energy and paralyses to the extent of its ability every vital function that is open to its attack. The physical signs of intoxication, that cause amusement to the vicious or unreflecting, are thus explained. This is how the tongue is loosened and the hand made unsteady. This is the secret of unstable limbs and blundering speech. And alcoholic brain paralysis is the cause of the very insensibility to danger or to pain which is sometimes pointed to by fatuous ignorance as an argument in favour of

strong drink. There is a legend of the Harz Mountains which relates the terrible history of a man who bought of a fiend immunity from pain. For a season all went well. Pain was henceforth but a name to this mountaineer. Of wounds, burns, inflammations he recked nothing; and he was as impervious to mental suffering. But his cunning bargain was his ruin. A dire malady seized him, and he was careless about its progress until cure was impossible. Had he felt pain he might have been saved; but the sentinel was removed from the gate, and when the enemy came near there was no alarm raised. Within twelve months the man was a physical wreck, and finally he vanished, of course to the accompaniment, in the tradition, of triumphant flames.

A great danger. What is this legend but a metaphor, the poor representation in allegory of a tragic drama ever in progress? To win a brief freedom from sorrow or suffering men and women sell themselves, body, mind, and spirit, to a deceitful drug. For a time they appear to have purchased peace. They drown their griefs. The throbbing of anguished nerves is stilled. There is a chance of carrying off the stroke of adversity as if none had descended. But the gain is short lived, and they have been over-reached in the contract. The darkness deepens, and one day the hapless victim realises that he is a slave of alcohol—a drunkard.

In the popular view a poison is the exact antithesis to a food. This current assertion we are

prepared to endorse. And the case against alcohol can be proved negatively as well as positively. We propose to give reasons for refusing alcohol a place in any list of foods.

CHAPTER V.—A CRUCIAL CONTROVERSY.

IN examining the claims of alcohol to be considered a food substance, and thus to escape complete condemnation for its all too evident poisonous attributes, it is necessary to understand what are the qualities that distinguish genuine alimentary substances. Fortunately there is here a practical agreement amongst scientists. *What is a food?* Whatever aids in the building up of the human organisation, or in the maintenance of life and activity, is fairly to be called a food. Definitions are many, but this will serve our turn. Dr. W. B. Richardson has classified foods under four heads,—viz., water foods, flesh-formers, mineral foods, fuel foods. But he declines to admit alcohol into any of these categories, saying: "Alcohol, like chloroform, is a narcotic; *it is in no sense a food.*"

Passing these divisions in review we also shall find that strong drink must be written down as an incorrigible defaulter.

First, as to water foods. Professor Huxley, in "*Water foods.*" his "*Elementary Physiology*," page 298, gives as the average weight of the body of a full-grown

man 154 lbs., and estimates this to be made up of 88 lbs. of water, as against 66 lbs. of solid matters. The daily wasting of water is stated to be 6 lbs., and of solid matters 2 lbs. To this extent continual replenishment is necessary. So that the man who scornfully denies that he is a water-drinker — as if that were a degrading designation—is talking very wide of the mark indeed, and really publishes his own ignorance. He is more dependent, so far as quantity is concerned, upon water than upon any other element that he assimilates. The great mass of his body is water, and the daily diminution in amount nature compels him to make good. We may add that in taking any kind of intoxicating liquors this supercilious individual is also swallowing badly adulterated water. It is the water that alone makes strong drink tolerable to the vast majority of palates.

*Functions of
water in the
system.*

The province of water is to quench thirst, to convey through the body the materials that are to do the work of rebuilding tissue, to assist digestion in the rôle of a solvent, and to remove waste which could not be retained in the body without mischief accruing. And none of these offices can alcohol fulfil. Any publican or spirit-seller who would return an honest answer to simple questions might be called as a witness that alcohol does not quench thirst. He would be compelled in candour to admit that his hardest drinkers, his most regular customers, and most confirmed toppers, are of all

men the most pitiable victims of chronic drouth. Strong drink creates thirst ; it is not in its nature or constitution to slake it. Only water can accomplish the latter feat. Where alcoholic beverages seem transiently to cure thirst it is not the poisonous but the innocuous part of the contents of wine-glass or tumbler that is lawfully entitled to the praise ; not the alcohol, but the water with which it is blended. This is the teaching at once of science and of experience.

And alcohol is no helper in the important task of preparing food in the stomach for the nourishment of the entire frame. It positively retards digestion. Very eager and very determined have been the advocates of intoxicating liquors to persuade the credulous that if nothing else could be pleaded in favour of strong drink, there was at least this available defence, that alcohol was of value in stimulating and aiding the gastric juices. But the ground cannot be held. Experiment after experiment has proved the contention false. Research has established the fact that alcohol coagulates the all-important pepsine, and weakens or destroys its efficiency.

Dr. F. W. Pavy says : "By direct contact it (alcohol) acts upon the stomach, and leads to a destruction of the secreting tubules. Nothing with such certainty impairs the appetite and the digestive power as the continued use of strong alcoholic liquids."

*Alcohol tested
as an aid to
digestion.*

Scientific evidence.

Drs. Todd and Bowman, in their " Physiology of

Man" (chap. xxiv.), remark: "The use of alcoholic stimulants also retards digestion by coagulating the pepsine, and therefore interfering with its action. Were it not that wine and spirits are rapidly absorbed, the introduction of them into the stomach in any quantity would be a complete bar to the solution of the food, as the pepsine would be precipitated from solution as quickly as it was secreted by the stomach."

Dr. Charles Wilson, in his "Pathology of Drunkenness" (Edinburgh, 1854), says:—"Ardent spirits received into the stomach harden certain articles of food and render them less soluble, as well as otherwise impede the digestive process."

Dr. F. R. Lees, a veteran amongst temperance scientists, combats the idea of intoxicants assisting digestion in these terms:—"Firstly, alcohol has no advantage as a local stimulant over a little ginger or pepper, in exciting a flow of juice, but, as an anæsthetic, interferes with perfect alimentation, and in especial, arrests that change of matter in the body which supplies the *valuable* material of the gastric juice itself. Hence, secondly, while more fluid may flow, it is not so *strong* in its digestive power. This, thirdly, agrees with fact, since abstainers have better and more regular *appetites* than moderate drinkers, and can eat and digest more. Fourthly, alcohol *irritates* the mucous surface of the debilitated stomach, though it may deaden the feeling of pain for a while.

Fifthly, experiments have often proved that alcohol *retards* digestion, hardening the food, and precipitating the pepsine of the digestive juice."

These words were published in an able essay, *A practical test by Dr. Munroe.* "Is Alcohol a Medicine?" (London, 1866). And the year before Dr. Henry Munroe had tested the question in a very practical way by bottling minced meat, gastric juice from the stomach of a calf, and in one case water as the third substance, in another alcohol, and in yet a third pale ale. In his "Physiological Action of Alcohol," the results appear. At the end of ten hours the beef in the first bottle (water) was dissolved like soap. In the second bottle (alcohol) it was still solid when cooled, and the pepsine was precipitated. In the third bottle (pale ale) digestion was equally unattained, and here again the pepsine was precipitated. To obtain close approximation to nature's methods and conditions in the human stomach, the temperature had been maintained at 100 deg., and the contents of all the bottles had been subjected to a consistent churning motion. The query was thus answered. Water was a true solvent; alcohol had no pretensions to be considered a solvent at all.

And the most ordinary observation confirms the finding. The influence of alcohol we see with our own eyes to be antiseptic. It arrests or retards changes. The preserved cherry in the housewife's closet is simple but irrefutable evidence. The effects of chemical agents are not fickle

Universal confirmation of decision.

and unstable, one thing to-day, or in a particular place, and something quite different to-morrow, or in a different environment. What alcohol will do and leave undone in the scientist's laboratory it will likewise—given the reasonable conditions—do and leave undone in the human economy. Knowing this there can be no excuse whatever for at this date regarding alcohol as a friend to the essential process of digestion. It is an unmasked foe.

*Alcohol an
untrustworthy
carrier.*

Again, alcohol in no sense fills the place of water in facilitating the supply of tissue-building material to various parts and organs of the body. On the direct contrary, it thwarts to the extent of its power nature's plans, and prevents the despatch of indispensable nutriment. Quoting Dr. B. W. Richardson: "It interferes with the absorption of food into the body. After it gets into the blood, it modifies the character of the blood; prevents the blood exerting its due quality and property" (Speech in Bedford Chapel, 6th March, 1884). In the succeeding section, when we come to consider the revelations which science has made with respect to the prejudicial influence of alcohol upon the blood, these points will have to be taken up more fully.

*And a bad
cleanser.*

In final dismissal of any claim of alcohol to be looked upon as a substitute, ever a make-shift substitute, for water, it only remains to say that the testimony is conclusive against ever allowing alcohol to figure in word or thought as an effective and useful scavenger of the human economy. At

a superficial glance, a humble function this. Yet it is a most needful labour, and once more alcohol fails in performance. And that is by no means the worst of the present sub-count of the indictment against the drug. Alcohol clogs the system with useless and baneful *débris*. The case is succinctly stated in an extract from a lecture by Dr. Alfred Carpenter. He says: "It (alcohol) arrests actions in the body which ought to go on; it stops the complete separation of organic particles into more simple elements. These changes, when properly performed, make matters more soluble in the fluids of the body, by which they may become expelled from the system by the different emunctories of excreting glands which nature has provided in the body. This material, when its final change is not perfected, is unable to escape from the organ which was about to complete its dismemberment, and the function of that particular organ is rendered imperfect by the presence of material foreign to its mission. The more the organ is stimulated by the alcoholic whip, the more it becomes impeded in its function, the half-altered *débris* is unable to travel farther, for the lymphatics and veins which ought to deal with it cannot properly touch it."

Alcohol has clearly no *locus standi* in the first class of foods. The questions we have next to ask are, Whether alcohol has any right to figure as a flesh-forming aliment or as a mineral food? For convenience of handling, we put these in-

quiries simultaneously. And science answers both with an emphatic negative.

It is a self-evident proposition that if the wear and tear of the body is to be made good, and life and health be maintained, a suitable and adequate replenishment of tissue through tissue-building foods must be in steady, persistent progress. Nature herself makes known the periodic need by a call there is no gainsaying. All animal structures require renewal through the agency of the administration of nitrogenous or albuminous substances. And even the skeleton—the bone of the body—trembles ever on the verge of decay, and demands rebuilding by a due proportion of phosphate of lime in the food received. In alcohol there is nothing that can meet these needs, or any one of them. No nitrogen is there, no albumen, no phosphate of lime. Not an atom of tissue, not a particle of muscle or nerve-substance can ever be supplied by alcohol. In no sense is this drug raw material for structure restoration. Baron Justus von Liebig, a most eminent scientist, and certainly not one who was too favourably disposed towards the temperance advocates of his day, witnesses unequivocally: “Beer, wine, and spirits furnish no element capable of entering into the composition of the blood, muscular fibre, or any part which is the vital principle.” Nothing that has occurred since has shaken in the slightest degree that plain and authoritative deposition. And we may go so far

“*Flesh
formers*” and
“*mineral
foods.*”

*Von Liebig's
statement.*

as to say that it is impossible that it should be shaken, for not more sure is the mathematical axiom that nought multiplied by nought gives nought, than that alcohol possessing no tissue-forming properties can form no tissue.

Dr. Charles Cameron says: "That alcohol is incapable of forming any part of the body is admitted by all physiologists. It cannot be converted into brain, nerve, muscle, or blood."

Some may be desirous to claim at this point *About malt liquors.* an exception in favour of malt liquors. But it is vain to try to dissociate these from their companions in mischief. What an extraordinary dream of folly is that which numbers of working-people harbour in supposing that a rich store of nutriment exists in beverages founded on malt and hops! In the food tables at South Kensington—to which previous reference has been made—a quarter of malt is said to produce three barrels—thirty-six gallons—of malted liquor. And a quarter of malt equals 352 lbs. As grain, the true food elements were present in abundance. And in malt they are by no means lacking, though (quoting Sir Lyon Playfair) "barley in the act of germinating loses a certain amount both of the constituents which form the flesh and those which form the fat of the animal. A given weight of barley is therefore of greater nutritious value, both as regards the production of muscle and fat, than the same weight converted into malt." But in beers they are replaced

by the harmful products of fermentation. The brewer goes deliberately to work to eliminate and destroy albuminous matter, and succeeds only too well. Boil down a quart of ale, evaporate the alcohol and the water, and you have remaining some two ounces of a sticky, untempting extract, which analysis shows to consist of hop-bitter, gum, and sugar! And this represents the flesh-forming constituents of the brewers' decoction!

*Why some
drinkers grow
fat.*

One further note at this turn of the discussion and we proceed. The waste residues—for such in reality they uniformly are—that are taken into the system with alcohol, constitute in themselves a danger and a difficulty. The company in which they are found produces its own effects upon them, and militates against their decomposition. Moreover, the ultimate action of the alcohol impairs the natural facilities of the body for either transforming or expelling them. And so they linger helplessly and injuriously in an organism to which they are foreign. This is frequently the origin of diseases grouped under the title of “fatty degeneration.” The alcohol “replaces actively vital materials by fat and fibrous tissue”—within the region of the kidneys—“it substitutes supuration for new growth.” (*British Medical Journal*, December, 1872).

“Fuel foods.”

Lastly, Can alcohol be removed from under the ban by exhibiting proof that it is a fuel food? It cannot. Research shows that it is as powerless to

replenish force, as to renew tissue. A stout fight has been waged at this point, and the principles of total abstinence are victors. The student of science is slow to say that verdicts uttered in her august name are final, but so clear, and definite, and incontrovertible is the evidence forthcoming in this case, that few, even of the most sanguine adversaries (one wonders if really sanguine adversaries still exist) will look for a reversal of the judgment. The sheet-anchor of the defence was, for a considerable while, a somewhat singular theory put forth by Baron Liebig, and since labelled with his name in books, pamphlets, lectures without end. We style his theory strange for two reasons. Because of the Baron's uncompromising refusal to acknowledge other claims on behalf of the drug; and because the basis of assured fact, on which alone it is safe to build a scientific speculation of any kind, would appear to be missing. Concisely stated, the theory is this: That alcohol is a calorific agent, a heat-giving food, to be classed with fat, sugar, and the other non-nitrogenous food elements; that alcohol is oxidised in the body, and gives out its latent energy as vitalising warmth and force. *The Liebigian theory.*

The fallacy—for such it is—has received passionate support from those whose interests lie in safe-guarding the fashionable indulgence in strong drink. It has played its part, too, in abetting the widely-prevalent popular idea that intoxicants increase the temperature of the body, *A common error.*

the current belief being founded on a superficial recognition of a phenomenon that is easily accounted for without yielding an inch of ground to the drink champions. Under the initial influence of alcohol, there seems to be an accession of bodily warmth. There is a comfortable (but temporary) surface sense of heightened temperature. But the heat is not brought into the system by the alcohol, but is simply released by its action. It was there before, at the centres of life and power. The effect of the absorption of alcohol is to cause an excess of blood to leave the heart, and find its way to the surface of the body. Moreover, the blood currents flow more rapidly, and this, too, generates warmth. Hence the pleasurable sensation, that *seems* to be heat, conferred by intoxicating liquors. In reality, the transient outward flush is a proof of inward depression. And the warmth radiated to the skin is in large measure ultimately lost through contact with colder air ; thus the action of alcohol is robbery rather than replenishment.

*Need and
function of
fuel foods.*

A regular and properly proportionate supply of true fuel foods to the human organism is vitally important. It is no meaningless or faulty imagery that compares life to a burning lamp, dependent on the continual recruiting of the oil which passes away in combustion. Let the oil or spirit fail in the vessel, and speedy extinction of the light will follow. And let fuel foods be withheld from the body, and as a parallel result, the

flame of life will sink down into its embers, waver, and go out.

The famous Liebigian hypothesis was exceedingly plausible when first promulgated, by reason of this very analogy. The chemical composition of alcohol is carbon, hydrogen, and oxygen, and genuine fuel foods are largely compacted of these constituents. Fat—which in this inquiry may be regarded as a typical substance—made up into a candle will burn visibly. So, likewise, will alcohol placed in a spirit-lamp. Is not this the test experimental, and does it not show that at last a position has been reached in which the defenders of strong drink can intrench themselves and defy every effort at dislodgment? The resemblance is a specious one, and that is the utmost that inexorable truth will allow. From these final lines of retreat the advocates of alcohol have been ousted. The Liebigian theory is disproved by facts.

It was a case in which a volume of practical proof was to hand before the scientific solution of the enigma. The hardy sailors who sought to penetrate the mystery of Arctic seas with one voice testified that they found treachery in alcohol. Instead of obtaining warmth and vigour from ardent spirits, they discovered that these alleged fuel foods lessened their ability to resist the terrific cold of extreme northern latitudes. The value of such evidence cannot be overrated, for it is palpably unpremeditated, *bonâ fide*, and conclusive on the point at issue.

Sir John Ross, who on one occasion was imprisoned in Polar waters for four tedious years (1829-33), and underwent fearful hardship, was himself a total abstainer. He relates how his example was its own recommendation to his crew. The men saw that he stood cold and fatigue better than they did ; and when he suggested that they should give up their allowance of grog, they agreed. The result was that the sailors' health so much improved, that though rum stood at their side they refused to touch it.

Sir John Richardson says, "I am quite satisfied that spirituous liquors diminish the power of resisting cold." And again, "We found on our northern journey that tea was far more refreshing than wine or spirits, which we soon ceased to crave for, while the craving for tea increased. Liebig, I believe, considers that spirits are necessary to northern nations to diminish waste of solids of the body ; but my experience leads me to a contrary belief."

Parry and Franklin, Rae and Kane, also testified from personal knowledge to the pernicious effects of strong drink in Arctic and Antarctic climates. And the failure of the last British Arctic expedition (1875-76) was traced by experts quite as much to the rum carried amongst the stores as to the cold, *in itself*, which the heroic band encountered. To this comparatively recent experience of Arctic voyagers we shall have to refer in more detail on a later page.

Baron Liebig's views were given to the scientific world about 1845. Although the evidence to which we have just called attention proved most clearly that his theory was erroneous, no immediate attempt was made to overturn the hypothesis backed by so honoured a name.

But in 1860 two eminent French *savants*—MM. L'Allemand and Perrin,—assisted by a third—M. Duroy,—published a prize essay on Alcohol, which claimed to show that alcohol is eliminated from the body in an unchanged state—alcohol still; and this in quantity closely approximating, if not positively equal, to that originally ingested. Hereupon a discussion began which yet remains unconcluded. The point at issue is the ultimate disposal of alcohol in the human body. We may not digress into these thorny side-paths of controversy. The subject is dealt with in Dr. B. W. Richardson's "Cantor Lectures," the delivery of which before the Society of Arts, 1874-75, marked an era in the progress of Temperance enlightenment. For a succinct statement of what is sought and what is alleged to be discovered we beg to refer the interested reader to Dr. Richardson's pages ("Cantor Lectures," pp. 63-68).

To the author of those famous Lectures we owe the researches that have finally dismissed the "Liebigian theory" to the limbo of scientific myths, and which have demolished every lingering pretension of alcohol to stand in the ranks of the fuel foods. Dr. Richardson has stated that he

entered upon his memorable course of inquiry and experiment without bias either for or against the drug the attributes of which he had been asked to examine, and that the results were a surprise to himself—"most surprising from the complete contradiction they gave to the popular idea that alcohol is a supporter and sustainer of the animal temperature."

The fact was now established that the invariable effect of administering alcohol was *to reduce animal temperature*. The observations were carried on over a period of three years, "on warm-blooded animals of different kinds, including birds; on the human subject in health, and on the same subject under alcoholic disease. Similar experiments were made in different external temperatures of air, ranging from summer heat to ten degrees below freezing-point" ("Cant. Lect." p. 69).

It was shown that there are four progressive stages in the alcoholic progress of animals towards death. First, excitement and increased surface warmth, which is in reality a process of cooling, the interior temperature falling concurrently with the advance of the pleasurable external glow by which so many are dangerously deceived. Next—and the interval is brief—the temperature declines below its normal standard. "In birds" the fall "reaches from one and a-half to two degrees. In other animals, dogs and guinea-pigs, it rarely exceeds one degree; in man it is confined to three-fourths of a degree. In a room

heated to 65° or 70° the decrease of animal temperature may not actually be perceived ; but it is quickly detected if the person in whom it is present pass into a colder atmosphere, and it lasts, even when the further supply of alcohol is cut off, for a long period—viz., from two and a-half to three hours. It is much prolonged by absence of food." In the third stage the fall of temperature is rapid and severe ; and as the fourth advances, sleep or coma is produced. This extreme alcoholic prostration may easily have a fatal issue.

Here, then, we have clear experimental testimony dispelling the delusion that alcohol can give heat. Quoting from Dr. Richardson elsewhere :

"I placed alcohol and cold side by side in experiment, and found that they ran together in fatal effect, and I determined that in death from alcohol the great reduction of animal temperature is one of the most pressing causes of death. I showed . . . that with increase of the specific weight of the spirit, the reducing effect is intensified" ("Results of Researches on Alcohol").

Professor Binz, of Bonn, reported to the British Association meeting at Bradford, 1873, a series of similar experiments, and practically parallel results. He stated that he had ascertained that quantities which any tippler would consider insignificant—absurdly innocuous—were able to decrease temperature from 0.4° to 0.6° in a very short time, the reaction being tardy. "Strong inebriating quantities," said he, "evince a still more *Corroborative evidence.*

decided lowering of 3.5° to 5° F., which lasts several hours."

And since then, two French scientists—Drs. Dujardin-Beaumetz and Audigé—have published an account of elaborate tests of the influence of the drug on pigs, which confirms and emphasises all that had previously been disclosed of the relations of alcohol to the natural heat of animal bodies.

*Experiments
of Dr. Edward
Smith.*

Working at another phase of the same problem at the same time as Dr. Richardson was Dr. Edward Smith. He was studying the phenomena of respiration, and the amount of combustion produced by the absorption of various foods and alleged foods, amongst them alcohol. And he found that the taking of this drug unmistakably reduced the product, when, if it had really been a heat-giver, it ought to have increased it. The inference which Dr. E. Smith was compelled to draw, coincided completely with the verdict ultimately pronounced by his brother investigator. Animated by the sole object of establishing the truth, whatever that truth might be, and travelling by different roads, the familiar tool of one a thermometer, of the other a fine and delicate balance into which he could breathe, these eminent scientists arrived at the same goal, and proved that alcohol is not a fuel food.

It remains to close the chapter and summarise the section. There is no escape from the two-fold conclusion that alcohol is a poison, and is not

an aliment. Says Dr. W. B. Markham, late editor of the *British Medical Journal*:

"Alcohol does not prevent the wear and tear of tissue. Part, and probably the whole of it escapes from the body; and none of it, so far as we know, is assimilated, or serves for the purpose of nutrition. It is therefore not a food in the eye of science."

*Opinion of
Dr. W. B.
Markham.*

It had been strange indeed if any proof had existed to substantiate the contention that intoxicating liquors contain a vitalising attribute, seeing that, tried by homely standards of what a food ought to be, alcohol is an impostor. No friend of strong drink dare urge that it is an essential. Whole races of the human family have done without it. It does not satisfy, as do true foods. The more a man takes the fiercer becomes his craving for fresh supplies. There is irrefragable evidence, as we shall shortly see, that dram-drinking abbreviates life, and genuine alimentary substances have not this tendency. Everyday observation teaches that alcoholic beverages are totally useless as foods; and being useless they are *a priori* harmful. The distinct recommendation of science is, Touch them not.

Simple tests.

And this advice concerns especially certain classes of the community. Men whose toil is exceptionally heavy, and who need adequate support, must not trust to strong drink. If they do, they will find that they have been leaning upon a reed. And a word of specific warning seems

*Alcohol and
nursing
mothers.*

fitting in this place to nursing mothers. There is no graver source of wrong to rising generations than the notion which has so long obtained a disastrous currency that mothers require the assistance of alcohol in regaining their own normal strength, and in nourishing their infants. Many ailments of infancy and youth can be traced to this origin. Dr. Kate Mitchell, L.M., &c., says :

*Dr. Kate
Mitchell on
this.*

"Alcohol is one of the worst drinks a nursing woman can take, both for her own sake and more especially for that of her child, who cannot altogether escape the influence of this drug." And this lady physician points out ("Effects of Alcohol upon Women") that by reason of maternal recourse to intoxicants, many children, "beautiful and healthy when born (although many even suffer in the womb from the mother's drinking habits) become emaciated or abnormally fat, fretful, sleepless—often suffer the most acute pain from colic and flatulence, diarrhœa and sickness," and adds, "It is useless to pretend that a poisonous drug like alcohol is powerless to do harm."

The child needs for its nutrition the same food elements as the parent, but in a prepared state, suitable for imperfectly developed powers of mastication and digestion. Nature meets this want by the agency of the secretion of the mammary glands, or mother's milk. That is to say, the work of elementary assimilation is done for the babe by the mother. And it frequently happens

that the emergency is beyond the ability of weak maternal digestive organs to cope with, and the mothers seek by artificial—and in the case of alcohol most obnoxious—means to increase the flow of milk. The real help is to be found in a carefully regulated and nutritious diet, and patient obedience to every rule of hygiene. Alcoholic beverages may set up increased action in the organs of lactation, but it is unwholesome and mischievous action, and in its consequences, near and remote, is full of danger for the infant. Alcohol can supply no element of the natural secretion being no real food substance, and invariably exhibits its poisonous properties. Dr. James Edmunds, late Senior Physician to the British Lying-in Hospital, writing on this topic in the *Medical Temperance Journal*, July, 1870, said :

“I fully believe that, in most cases, the use of alcoholic liquor does increase the quantity of milk secreted by the nursing mother. . . . But the increased quantity of milk is produced by a mere addition of alcohol and water, or it is produced by impoverishing and straining the system of the mother. In either case, the poisonous influence of the alcohol is manifested in narcotising the child, and it cannot need much reflection to show that children ought not to have alcohol filtered into them as receptacles for matters which the mother’s system finds it necessary to eliminate, and that probably nothing could be worse than to have the

*Also Dr. J.
Edmunds.*

very fabric of the child's tissues *drawn from alcoholised blood.*"

Résumé.

It has been clearly shown that there is a generic resemblance between all forms of intoxicating liquors, and that, by the result of the same tests, the character of one and all must be indicated.

We have found that the secret of the fascination of strong drink resides in the presence of the ruling constituent, alcohol; and that this originates in the processes of decomposition, and in all probability is due primarily to the action of a germ akin in its nature to the minute organisms which are revealed by the microscope as the causes of many fell diseases. The common-sense deduction has been that alcohol must itself possess noxious peculiarities.

And this conclusion has been amply borne out by evidence that convicts alcohol as a narcotic-irritant poison. Moreover, we have incidentally observed that this evil spirit takes with suspicious kindness to sinister company; in other words, that strong drink is often adulterated with substances that are properly foreign to its composition.

In the last place we have seen that alcohol can impart to the human body neither nutriment nor vital force.



III.

THE MEDICAL INDICTMENT OF STRONG DRINK.



CHAPTER I.—TRACING THE ENEMY; ALCOHOL AND THE BLOOD.

MEDICAL science may be said to exist for *Functions of the science of medicine.* two objects—to cure disease and to prevent disease. Some would perhaps widen this saying by admission of a third object, the amelioration of disease or of pain. But reflection would seem to show that to lighten the load of suffering is, to that extent, either cure, or prevention of such special developments as in default of palliative measures would be natural and inevitable; and that, therefore, the two primary divisions are sufficiently inclusive. Whatever demur may be raised to this initial reasoning, none will deny that the close, the panting pursuit of every kind and fragment of knowledge which is likely to aid in routing disease, is part of the rightful business of medical science. The normal condition of the

physician's mind should be that of the alert investigator. The profession has nobly recognised this, and of late years has turned its attention more and more earnestly to the doings of the drug which, entering more or less extensively into the composition of all fermented liquors, exerts in these days an unparalleled influence—physical, mental, and moral,—on all civilised and pseudo-civilised nations.

Tennyson speaks of a

“Fierce light that beats upon a throne,
And blackens every blot:”

presumably a very uncharitable glare. But the hideous loathsomeness belonging to alcohol, seated in its high places, and apparently securely installed, has not been gradually disclosed by the rays of a lamp held by the hand of prejudice. The revealing light has been the clear flame of scientific scrutiny seeking only facts. The one object of the search has remained from first to last the perfecting of the art of healing. On the solid basis of facts, gleaned and verified, science rests her warnings. She would neither willingly overlook an important point nor score a mark against alcohol out of malice.

The researches of which some account has been given in the last section (II), compelled the leaders of thought in medical circles to look upon alcohol as an enemy; and as a direct consequence, an attitude of indifference had to be abandoned.

Tracing the Enemy: Alcohol and the Blood. 77

The action of alcohol on every organ of the body has now been subjected to stern investigation. The relations of the drug to every vital function have undergone examination. Stage by stage the poison has been tracked in its progress through the system, from ingestion to elimination. A measure of obscurity still exists with respect to here and there a detail, but much is known, is established as certitude, and merits the careful attention of every drinker of alcoholic beverages. In what follows it is intended to offer an epitome of some of the most striking and formidable charges which medical science brings against alcohol.

By whatever route alcohol is introduced into the body, whether in the ordinary way, by the alimentary canal, by inhalation as a vapour, or by injection beneath the skin, it is rapidly absorbed into the blood, and its influence on "the vital stream" first challenges notice. The drug begins by working mischief. In the blood there are millions of minute blood-discs or corpuscles, which are active carriers of oxygen from the lungs to the tissues of the body. Alcohol impedes their labour and deranges their function. Coming into contact with these corpuscles, it diminishes their size by robbing them of water, for which it has everywhere a singular affinity, and their value as ensuring purity of blood and high functional activity, by using up their oxygen in its own oxidation. The result is a marked and most disadvantageous interference with a fundamental pro-

*Alcohol in
the blood.*

cess on which life and health depend. There is a slackened removal of waste tissue, less vitalising of the various scattered organs, less heat. When the blood again reaches the lungs, these corpuscles remain in their shattered state, and return thus into the arterial circulation. Is it wise to give a foreign element power to mar Nature's beneficent scheme in such wanton fashion?

Alcoholic discoloration.

And herein is the explanation of the blotches that sometimes disfigure the face of a confirmed toper, of the heightened colour of his nose, or of the uniform dark-red complexion that is occasionally met with. The weakened blood corpuscles lag behind, and being unable to absorb air in sufficient quantity to renovate themselves, they become congested beneath the skin.

Evidence of experts.

Although it is to comparatively recent studies that we owe the full flood of light now cast upon this portion of a great problem, the initial effect of alcohol on the blood was put on record by a German *savant*, Dr. Carl H. Schulz, as far back as 1834. He pointed out that at touch of the drug the blood-discs parted with their energising properties, and became sluggards in the task of carrying off carbon from the body. Drs. Virchow and Böcker offered similar evidence in, respectively, 1853 and 1854. And by a series of exact experiments, Prof. J. Dogiel came to like conclusions, and stated them before a gathering of Russian scientists, meeting at Kasan, in 1873. Quoting Dr. N. S. Davis, President of the American

Medical Association, it is now a fully established scientific fact, "that while circulating in the blood alcohol retards those molecular or atomic changes by which nutrition, disintegration, and secretion are maintained, and the phenomena of life continued." ("Verdict of Science concerning Effects of Alcohol.")

The consequences to health are very serious. Carbon and other poisonous matters are retained in the system when they ought to be discharged. A state of body predisposed to disease is thus brought about. Every surgeon is aware that hard drinkers are difficult subjects to cure when accident strikes them down. Brewers' men are notable cases in point. Beer drinkers, while readily acknowledging that there is a degree of risk in being addicted to ardent spirits, are apt to fancy that they at least shall escape. It is an error. Very nearly fifty years ago, Dr. R. B. Grindrod wrote thus in his prize essay, "Bacchus": "A copious London beer drinker is all one vital part; he wears his heart upon his sleeve, bare to a death-wound from the claw of a cat or a rusty nail. . . . Every medical man in London dreads a beer drinker for a patient in a surgical case." Says Dr. T. Lauder Brunton, *The evil thus occasioned by alcohol.* in Cassell's "Book of Health" (London, 1883): *Dr. T. L. Brunton on beer drinkers.* "As the beer drinker takes beer in addition to other nutriment, he has a tendency to become fat and bloated at one time, although he may afterwards become thin and emaciated, from his digestion also suffering like that of the spirit drinker.

Notwithstanding the apparent stoutness and strength of beer drinkers, they are by no means healthy. Injuries, which to other people would be but slight, are apt to prove serious in them ; and when it is necessary to perform surgical operations upon them, the risk of death is very much greater than in others." These are not the words of a dogmatic temperance teacher but they confirm in every respect the temperance contention. And the mischief effected by alcohol in the blood does not end here. The blood contains not merely these millions of red and white corpuscles, or cells, —the former fulfilling the more important tasks— but also a quantity of fibrine in extremely delicate filaments, literally the binding, cohesive quality in the life-stream. It is to the fibrine that coagulation is due, and without the natural check on waste provided by this process, dangerous or even fatal loss of blood would infallibly result from any bodily wound. In addition, the fibrine acts as regulator to the ingress of the blood to and its egress from the blood vessels.

On this fibrine, says Dr. B. W. Richardson, the administration of alcohol "may act in two different ways, according to the degree in which it affects the water that holds the fibrine in solution. It may fix the water with the fibrine, and thus destroy the power of coagulation; or it may extract the water so determinedly as to produce coagulation." It is thus that "in acute cases of poisoning by alcohol the blood is sometimes found

quite fluid, at other times firmly coagulated in the vessels" (Cant. Lect.," pp. 45, 46).

It is no slight danger that is thus occasioned. The daily saturation of the body with intoxicating liquors, in which so many indulge, may easily induce fortuitous coagulation of the blood at some point in the system where the consequences of impeded circulation must be serious. If this should happen in the brain it is very likely indeed that paralysis may supervene.

Once more, we have to notice that the influence of alcohol is prejudicial to the blood-vessels. The drug injures them and obstructs their functions by its action upon the nervous system. This is a matter which will cross our path in a subsequent chapter. And it has another slow but direct and sure way of tampering with them and their appointed tasks. This has been pointed out, with the help of a very appropriate metaphor, by Dr. James Edmunds, of the London Temperance Hospital, in a lecture on "Alcohol as a Medicine," delivered in Manchester Town Hall, 21st February, 1867. He said: "The blood carries certain earthy matters with it in a soluble state, these earthy matters being necessary for the nutrition of the bones and other parts of the body. You all know that when wine is fermented, and turned from a weak sweet wine into a strong alcoholic wine, you get what is called a 'crust' formed on the inside of the bottle. What is that crust? Why is it formed? That 'crust' consists of saline

*Dr. Edmunds
on alcohol and
the blood-
vessels.*

or earthy matters which were soluble in the saccharine grape juice, but which are insoluble in the alcoholic fluid. We find in drunkards that the blood-vessels get into the same state as the wine bottles from the deposit in their texture of earthy matter, which has no business to be deposited, and forms, as it were, a 'bees-wing' or 'crust' in the blood-vessels of the drunkard, in his eye, and in all the tissues of his body. The result is, that the tissues get weak and brittle, and in performing their duties they break down; thus the blood-vessels burst under a little unusual strain, and we get apoplexy, and sudden death, and paralysis, and slow miseries of all sorts."

Let no objector urge that this is a detail of the argument which only concerns the drunkards of whom Dr. Edmunds spoke. The action of alcohol upon the blood and upon the blood-vessels may vary widely in degree, but is essentially the same *in kind* in every case. Medical science accuses the drug of being a treacherous and determined enemy from the beginning.

CHAPTER II.—ALCOHOL AND THE HEART.

THE regal position held by the heart in the animal economy makes the inquiry which now opens one of incalculable importance. The physical advantages of total abstinence are beyond dispute if it

can be established that the drug which constitutes the spell of all intoxicating liquors maliciously assails the inmost fortress of life. It is not a light question, challenging flippant reply, this that we ask;—In what manner is the heart affected by the taking of alcoholic beverages?

And behind this query stands a second and supplementary one.

Is medical science able to point out any disease or dangerous susceptibility of the heart that is indubitably caused by alcohol?

The very name of this great organ is practically synonymous in familiar talk with “centre,” and certainly from the human heart every other organ and limb is sustained and fed. All the veins and arteries of the body have connection with the great trunks which debouch into or spring from the various divisions of the heart. Here is the grand pumping engine, ceaselessly at work while life lasts, despatching blood to the remotest extremity.

Work of the heart.

Action and reaction is one of the laws of physical economy. You cannot study in any department without trespassing over the borderline of some other, perhaps of several others. It is the case here. Before considering the answers which science gives to the questions propounded above, it is necessary to revert, on the one hand, to the closing lessons of the preceding survey, and, on the other, to anticipate somewhat an examination into the relations which subsist between alcohol and nerve-substance and energy.

Weakened control of the blood-vessels.

One of the earliest effects of alcohol when absorbed into the circulatory system—as we have just seen—is to reduce very materially the control exercised by the vegetative or purely animal nervous system over the dilatation of the blood-vessels. This normal control takes effect through the medium of the muscular fibres, which encircle the vessels like so many rings. It is the function of muscular tissues to contract at the bidding of the guiding nerves. Quoting Professor Huxley: “And when they exercise this power, they, of course, narrow the calibre of the vessel, just as squeezing it in any other way would do; and this contraction may go so far as, in some cases, to reduce the cavity of the vessel almost to nothing, and to render it practically impervious.” But the poison, alcohol, touches those controlling nerves with the finger of paralysis, and compels them to relinquish their care over the vascular system. This action of the drug is of immeasurable gravity.

The results.

The results are threefold. There is, first, a swift accession of blood to the brain and to the skin—the drinker feels “jolly” and “warm.” There is, second, incipient congestion where the blood-vessels form a closely woven texture. And this means liability to disease and death. The victim “takes a chill,” as the phrase goes, and the congestion ceases to be potential and becomes actual. Inflammation of the lungs, or brain, or other of the great organs of the body, is thus set up, and may easily have a fatal end. There is small ques-

tion that many a life has in this manner been sacrificed to strong drink, although without the relatives or friends of the unfortunate subject suspecting the fact.

But our chief business here is with the third result. This is, that the lessening of the muscular resistance of the blood-vessels permits their dilatation to their extreme capacity (in bad instances), and consequently overworks the heart. It is easy to see how this latter effect is produced. There is a smaller quantity of blood for the heart to deal with at the centre of life, and as, coincident with this phenomenon, there occurs a relaxation in the determining influence which should properly be maintained by the nervous system, the heart increases its speed in exact proportion to the power of the ingested alcohol.

It is patent at once that alcohol is unable to act upon the heart otherwise than as a spur, for it is sufficiently proved that it has no restorative or tissue-building property to exercise in behalf of any organ. Indeed, the very influence which we are now discussing is detrimental to the heart's substance. Dr. W. B. Carpenter says :

“The continual but irregular excitement of the contractile action of the heart and arteries, which is the result of the habitual use of stimulants, must of itself predispose their tissues to disease ; and this predisposition will, of course, be increased by the contact of blood charged with alcohol with their lining membrane, as well as by the general

*Evidence of
Dr. W. B. Car-
penter.*

disordered condition of the nutritive operations" ("Physiology of Temperance and Total Abstinence," p. 74).

*Of Dr. E. A.
Parkes and
Count C. Wollowicz.*

Dr. E. A. Parkes and Count Cyprian Wollowicz were early in the field as investigators of the influence of alcohol upon the heart. Their subject was a young and healthy adult man. They counted the beats of the heart at fixed intervals, first, while their subject was under a water *régime*; and second, while he received alcohol in increasing quantities. They say :

"The average number of beats of the heart in twenty-four hours (as calculated from eight observations made in fourteen hours) during the first or water period, was 106,000; in the earlier alcoholic period it was 127,000, or about 21,000 more; and in the later period it was 131,000, or 25,000 more."

Moreover, they state that the highest daily mean of heart-beats per minute during the water period was 77, and that this was an exceptional number, the average—on a comparison carried through eight days—being only 73·57. Prepared to grant intoxicants every legitimate advantage, the investigators placed the *higher* figure side by side with the results of observations taken during the alcoholic period. They ascertained that on the first day of the later trial, under the influence of one fluid ounce of alcohol—representing, roughly, half-a-pint of pale ale,—the heart beat 4300 times more; on the following day, with two fluid

ounces of alcohol, 8172 times more ; on the third day, with four ounces of the drug, 12,960 times more ; on the sixth day, with eight fluid ounces of alcohol, 25,488 times more.

Nor was this all. "The period of rest for the heart was shortened, though perhaps not to such an extent as would be inferred from the number of beats, for each contraction was sooner over."

The import of the statement is, that the heart is not only terribly overworked by alcohol, but that even its brief opportunity for repose—one-half to one-tenth of a second—is mischievously shortened.

Again, the two *savants* say that, accepting the lowest estimate which has been given of the daily work of the heart—namely, as being equivalent to the lifting of 122 tons one foot—then the heart during the alcoholic period did daily work in excess equal to lifting 15·8 tons one foot, and in the last two days did extra work to the amount of 24 tons lifted as far."

Dr. B. W. Richardson comments thus :

"It will seem at first sight almost incredible that such an excess of work could be put upon the heart, but it is perfectly credible when all the facts are known. The heart of an adult man makes, as we see above, 73·57 strokes per minute. This number multiplied by sixty for the hour, and again, by twenty-four hours for the entire day, would give nearly 106,000 as the number of strokes per day. There is, however, a reduction of stroke produced by assuming the recumbent

Dr. B. W. Richardson on this.

position and by sleep, so that for simplicity's sake we may take off the 6000 strokes, and speaking generally, may put the average at 100,000 in the entire day. With each of these strokes the two ventricles of the heart, as they contract, lift up into their respective vessels three ounces of blood each, that is to say, six ounces with the combined stroke, or 600,000 in the twenty-four hours. The equivalent of work rendered by this simpler calculation would be 116 foot tons; and if we estimate the increase of work induced by alcohol we shall find that four ounces of spirit increase it one-eighth part; six ounces, one-sixth part; and eight ounces, one-fourth part"* (Cant. Lect., p. 52).

And this inevitably means mischief. The heart is jaded, over-stimulated, injured. Then, too frequently, its erring master tries to remedy the distress of which he may become vaguely conscious by the administration of more alcohol, as if a trembling and exhausted slave could be really refreshed by the slave-driver's whip.

The first of our two questions then, is answered.

*Risks to the
heart.*

And incidentally a partial response has been supplied to the second. Physical peril must and does lurk in the heart's increased labour coupled with diminished rest. The forces of vitality cannot be indefinitely drawn upon. The calling out of power involves the using up of strength, and alcohol stores up no reserves. A bank may honour many a large draft, and in an unexpected

* See Notes.

hour fail to meet a comparatively trivial one. Chronic alcoholic fatigue affecting the very main-spring of life is likely to end in a disastrous breakdown. The danger grows with the growth of indulgence in strong drink. The larger the quantities of alcohol ingested the more onerous are the conditions of the heart's struggle—the greater is the strain, the slower and feebler the recoil. Before the recent Colonial and International Inebriety Congress (London, July, 1887), Dr. B. W. Richardson showed a series of pulse readings which demonstrated the extent to which the heart is disturbed in cases of habitual intoxication. He explained that after a heavy debauch the pulse would ultimately recover its tone, but that it was quite three days before the return to health was declared ; and that in the confirmed inebriate the heart was never allowed to work under natural conditions, intervals of relief from the disturbing drug extending from eighteen to thirty-six months being often needed to restore health.

Moreover, the evidence is conclusive that a number of most serious diseases of the heart and arteries are directly caused by the alcoholic habit. Through habitual excess grave structural changes are often produced, resulting in "a feeble, large heart, dilated, rigid arteries, and bulging, distended veins." There is no room for doubt that the presence of alcohol in the great circulatory current tends to bring about such grave disorders as aneurism and fatty degeneration. Invoking

again the high authority of Dr. Richardson (in "Diseases of Modern Life") we find that—

*Evidence of Dr.
Richardson.*

"Disease of the heart is a common organic malady incident to the alcoholic constitution of body. The form of disease is usually either a degeneration of the muscular fibre—an interposition within the fibre of fatty substance, by which the true muscular elements are partially replaced, or a degeneration produced from excess of fluid between the muscular elements."

It is singular, to put it mildly, that men should so anxiously endeavour to discover the precise quantity of alcohol which can be taken with the minimum of injury, when as total abstainers they might be completely safe.

Enough has surely been written to demonstrate how certainly amongst the deadly enemies of the heart of man, even in a purely physical sense, alcohol must be reckoned.

Science has answered both our interrogatories.



CHAPTER III.—A GREAT DISTURBER.

*Alcohol in
relation to
the nervous
system and the
mind.*

THE poisonous properties of alcohol are revealed in active operation at every stage of its journey through the animal system. Examination of its effects gives, from first to last, results alike in kind. Against the drug stands a monotonous record of evil doings, broken by no redeeming item of genuine service rendered. The fuller and more detailed the

evidence the sterner are the terms in which science bans alcohol, Destroyer, Enemy of the Race. But if the toxical influence is more manifest in one department than in another, and if the havoc accomplished is more irreparable and more sinister in character, it is in the region whither we have now to follow the drug. Perhaps the most grievous and far-reaching count in the indictment presented by medical research against strong drink is, that it strikes at the brain, deteriorates nerve substance, and weakens nerve functions in every direction, and not seldom drags Reason from her golden throne.

Man is the owner of two intimately related, *A distinction.* though not always harmonious, nervous systems. One, the vegetative, is styled aptly enough by Professor Huxley the "combining organ" of all other animal organs and functions in the human body. By it we move, eat, digest, and have, in brief, our physical being. It is necessary. Life depends upon its consistent and continual action; but for all that, its movements are on a lower plane than those of its fellow. It ought never to override the authority of the second, the cerebro-spinal system, which is the seat of the high mental faculties. This complementary and in function more exalted system, is the medium by which we receive impressions from the world without, and by the help of which we construct with those impressions edifices of thought.

Alcohol places a rude and jarring hand on all

this delicately adjusted machinery. It puts both these systems more or less out of gear, labours uniformly to subordinate the higher to the lower, the noble to the base, and is at every point and along the whole line of its influence what we have called it—a great disturber.

An example of this has already been given in the case of the controlling nerves belonging to the muscular fibres in the coating of the blood-vessels. Many even more serious manifestations of the same mischievous propensity await notice. Perhaps it is desirable to devote a little preliminary attention to the further effects of alcohol on the general communication between nerves and muscles. Amongst the untenable defences which from time to time have been, and still are, put forward on behalf of alcoholic beverages is this: that they are conducive to muscular strength.

*Intoxicants no
source of
muscular
energy.*

It is a pitiable delusion. They sap and destroy muscular energy, and never replenish it. The stimulus to the muscles may come originally either from the automatic nervous system or from the will, but the medium, in either event, employed to convey the command, the summons to action, is the specialised nerve or set of nerves. Now alcohol delays the message and impairs the power of muscular obedience known as contraction. Dr. Richardson found that the muscle of a frog stimulated to fulfil its function was able to work—to lift weight—in inverse ratio to the quantity of alcohol administered.

Drs. L'Allemand, Perrin, and Duroy in their *Witnesses*.
"Rôle of Alcohol" (Paris, 1860), declare plainly that by the presence of alcohol "muscular power is weakened." Dr. Baer, of Berlin, quoting from a fellow *savant* (Dr. Donders), says: "Alcohol is no savings-bank for muscular strength, as, in time, it utterly destroys it. Dr. William Brinton, says: A moderate dose of beer or wine would, in most cases, at once diminish the maximum weight which a healthy person could lift." The notable experiments on the living subject by Dr. Parkes abundantly bear out this statement. Quoting once more from the "Cantor Lectures," of Dr. Richardson: "The action of alcohol continued beyond the first stage, the function of the spinal cord is influenced, the nervous control of certain muscles is lost, and the nervous stimulus is more or less enfeebled. The muscles of the lower lip in the human subject usually fail first of all, then the muscles of the lower limbs. . . . The muscles themselves, by this time, are also failing in power; they respond more feebly than is natural to the nervous stimulus; their structure is becoming temporarily deranged, under the depressing influence of the paralysing agent, and their contractile power is reduced." Said Dr. H. S. Paterson, in a public address: "Don't imagine it (alcohol) conveys strength. There is not a greater delusion on this matter than that alcohol gives the strength. It can't give strength; it can take it away. The experience is world-

wide, that the use of water and other harmless liquids is much more conducive to effective labour than the use of intoxicating drink in any quantity."

Here, then, we have the popular fallacy demolished by science. It is likewise completely controverted by a great array of practical proofs, a selection from which will stand as evidence of the gain from total abstinence in a later section.

*Brain
poisoning.*

"Alcohol," says Sir Benjamin Brodie, "never creates nervous energy." But, alas, it too frequently shatters it, and by its terrible narcotic-irritant action, exerted upon the brain, wrecks the constitution. A voluminous and awful register it would be that should record the nervous and mental derangements due solely to alcohol. In all the universe there would be no set of books so harrowing to read, so tragic in their succinct tales of noblest faculties wrested to shameful misuse, of brilliant minds quenched in a more than Egyptian darkness, of great powers wasted, and young promise unfulfilled. The very catalogue of destructive maladies of these inseparable classes—nervous and mental—traceable to the doors of the hateful drug, incomplete as medical science avowedly leaves it, enormously incomplete as it must stand in our pages, is enough to create terror, disgust, and deepest sadness. It ought to be enough to inculcate and induce total abstinence. The dreadful list includes apoplexy and paralysis, softening of the brain, and insanity of many shades and in

Its results.

every degree, aphasia (loss of speech), acute cerebral meningitis and cerebral thrombosis, epilepsy and numerous diseases of the spinal cord, chronic alcoholism and *delirium tremens*.

Alcohol brings about dangerous deterioration in the quality and in the functional power of the brain cells. The extremely delicate tissue of the brain needs renovation as much as the tissue of a remote limb; and far more depends on the adequate meeting of the need. Alcohol interferes with the rebuilding process, and causes woful ultimate degeneracy. For a space all may seem to go well. The evil is hidden, only suspected at the worst by the family physician. But a sudden shock is experienced, or cares accumulate into a heavy burden, and then, under the strain, the mischief is revealed,—too late. This is how it often happens that men who were outwardly hale and strong one week, are smitten into impotence or imbecility the next, or have passed away under what their neighbours ingenuously call “a stroke.” This is how lunatic asylums are filled.

The narcotising influence of strong drink commences with the humbler nerve organisation, and proceeds onwards and upwards to the higher. Its paralysis falls on the outer ramifications of the vegetative system, as has been shown, while at the very time the victim is only conscious of stimulation and general jollity and content. And this diverse effect is part and parcel of the treachery of the drug. The same dose of alcohol may stimu-

*First stage of
the drinker's
progress.*

late (temporarily) one set of nerves, and narcotise another, and in the fact is to be found the key to the supposed staying properties of strong drink believed to be exhibited in the appeasement of appetite. Hunger relaxes its grip for a while on the administration of even a small quantity of alcohol. The truth is that the nerves of the stomach have been narcotised, and so the craving has ceased. It is not that the patient has been really fed. But many people are misled by the phenomena, and so has arisen the ridiculous fragment of drunkard's cant—"beer is both meat and drink." It is never the first; it is only by a technical and charitable construction the second. And in the long run the dupes of alcohol discover that by thus buying the relief of a few minutes or hours, they have put in grievous peril both health of body and health of mind.

*Nature's hard
fight.*

Nature everywhere struggles to adapt herself to her environment and to conditions, which, however alien and unwelcome at first, are gradually made familiar by habit. It is so with the physical constitution of man. To the eye of the scientist there must often appear a dumb pathos in the effort of the bodily organs to tolerate what they ought never to be required to deal with. And so heart and brain, and liver and kidneys, work on in spite of the persistent poisoning to which in such a multitude of instances they are subject. In their automatic fashion they still do their best. But they suffer, and their flagging

powers create an uneasiness which is apt to bring renewed application of the spur. Then the shadowy bounds of "moderation" are past, and the man or woman is, consciously or unconsciously, drinking "to excess."

The signs are to be detected in diminished sensibilities upon a higher level. Modulations in sound are no longer accurately determined. The delicacy of the sense of touch is impaired. Precision is at an end in the minor sight identification. Thought is clouded, and there is no longer power or patience to attack troublesome details of any current question. Although a casual observer, or even a close friend, might pronounce the victim very far removed from a state of intoxication, it is nevertheless a fact, that the toxical qualities of alcohol have succeeded in partially paralysing a remoter portion of the nervous system. The mischief has gone deeper ; the danger to the brain is intensified.

Dr. J. J. Ridge proved by a series of skilful experiments, the results of which were published in the "*Medical Temperance Journal*, April, 1882, that these effects of the drug which are so markedly present when the drinker can pass the jest freely, and is in what we may call the "good company" stage of a carouse, are really progressive, begin with the first glass of an intoxicant, and are heightened by every succeeding dose of alcohol. He showed that alcoholic beverages dull feeling, diminish sensibility to weight and

*The second
"drink"
stage.*

*Symptoms new
only in degree ;
Dr. Ridge
proves this.*

power of discrimination, and affect the vision disadvantageously from the outset. The disturbance may be trifling, and only disclose itself to refined tests ; but it is there.

“One thing,” says Dr. Ridge, “becomes very clear—namely, that the highest possible perfection of the nervous system is only possible with strict total abstinence.”

*Stage the third
in drink—
declension.*

To return. And now the mind is falling under the sway of alcohol ; excess continually repeated disables more frequently and more thoroughly the finer and more complex nerve fibres of the brain ; the man or the woman may or may not show in gait and word and gesture, that a stage of advanced intoxication has been reached—there are cases where the outward signs are curiously irregular, — but in saddest verity one more unfortunate is on the steep descent to chronic-alcoholism and a drunkard’s grave. Even the will is narcotised now. Awakened perhaps at last to the horrors of the situation, the captive of strong drink loathes the drug that is destroying him. Yet he has no might to break his chains. With the grim end full in view he still drinks, for the longing for alcohol has become a master passion.

*Drink and
insanity.*

The shadows are black indeed in this picture, but let it never be forgotten that they are potentially present on the canvas of every so-called moderate drinker’s life. Link by link the fetters are forged ; step by step the precipice is reached.

And as we have stated, at any juncture a frightful development of disease, or of functional brain derangement may afflict the individual whose brain tissues are chronically saturated with alcohol. The only real safety is in consistent abstinence. Medical science has made it clear that "teetotalism" is synonymous with freedom from the influence which is more active and powerful than any other in increasing the numbers of the insane. The intimate relationship between strong drink and madness is matter of common notoriety. The statistics that overwhelmingly prove the closeness of the link will remain to be examined elsewhere, but in passing a quotation is *apropos* from a lecture by Dr. T. S. Clouston, Physician Superintendent of the largest asylum for the insane in Scotland. Dr. Clouston was addressing the students of Edinburgh University (19th December, 1883), on "The Effects of the Excessive Use of Alcohol on the Mental Functions of the Brain," and he said: "We know as a statistical fact that from fifteen to twenty per cent. of the actual insanity of the country is produced by the excessive use of alcohol. . . . This makes about 17,500 persons at any one given time in the British Empire, who are so incapacitated by reason of mental alienation, produced through the excessive and continuous use of alcohol. . . . In these cases you have got to the acme of the bad effects of alcohol on the mental functions of the brain; you have arrived, as it were, at the worst

Dr. Clouston's evidence.

that alcohol can do to a man's mental functions, and you will all admit that it is a bad enough result, and it occurs in the large number of cases I have mentioned.

"But you must remember that these numbers are merely of those so well known as to be available for statistics, merely the registered persons who have been so ill as to have been sent to asylums through the excessive use of alcohol. For every one of those who had become really insane, there are no doubt a large number who have become partially affected in mind, but not to such an extent as that it has been necessary to deprive them of their liberty, but who, nevertheless, are affected in mind through the excessive use of alcohol to some extent, and who are, many of them, partially insane."

The use of intoxicating liquors, then, results in brain poisoning and a greater or less paralysis of the whole nervous system ; the effect produced is *cumulative*, and there is no ground whatever for the comforting fancy that only the larger doses do harm, for, administered in whatever quantity it may be, the drug acts after the manner of its kind.



CHAPTER IV. — THE GENIUS OF
DEGRADATION.

THE apt and telling phrase written above was first applied to the character and operations of alcohol by Dr. W. H. Dickinson. And how well deserved was the scathing definition the eminent physician showed in a paper read before the Royal Medical and Chirurgical Society, October, 1872. "Alcohol," he affirmed, "causes fatty infiltration and fibroid encroachment; it engenders tubercles, encourages suppuration, and retards healing; it produces untimely atheroma, invites hæmorrhage, and anticipates age. The most constant fatty changes, replacement by oil of the material of epithelial cells and muscular fibres, though probably nearly universal, is most noticeable in the liver, the heart, and the kidneys. The fibroid increase occurs about vascular channels and superficial investments of the viscera, where it causes atrophy, cirrhosis, and granulations. Of this change the liver has the largest share; the lungs are often similarly but less simply affected, the change being variously complicated with, or stimulative of tubercle; the kidneys suffer in a more remote degree."

A vast volume of evidence which frivolity cannot away with, supports and reiterates these charges. Alcohol along the whole line of its absorption is potent to induce disease. It is kindly disposed towards no organ of the human

body. Mistakenly admitted into the stomach as a friend, it diffuses its venom throughout the system, deranges every function, and assails life and health at every vulnerable point. It is this insatiable propensity to injure and destroy, revealed by continual diagnosis in the cases of the sufferers, that has compelled the leaders of medical science to denounce the drug in terms that with every accession of knowledge increase in vigour and severity.

Sir Henry Thompson, in an open letter addressed to the late Archbishop of Canterbury (Dr. Tait), said :

*Evidence of Sir
H. Thompson;*

“ I have long had the conviction that there is no greater evil, moral and physical, in this country than the use of alcoholic beverages. I do not mean by this, that extreme indulgence which produces drunkenness. The habitual use of fermented liquors to an extent far short of what is necessary to produce that condition, and such as is quite common in all ranks of society, injures the body, and diminishes the mental powers to an extent which I think few people are aware of. . . . I have no hesitation in attributing a very large portion of some of the most painful and dangerous maladies which come under my notice, as well as those which every medical man has to treat, to the ordinary and daily use of fermented drink, taken in the quantity which is conventionally deemed moderate.”

Sir W. Gull says :

"I hardly know any more potent cause of *Sir W. Gull*; disease than alcohol."

Dr. George Harley (see pp. 47, 49) stated recently :

"Notwithstanding the familiarity of medical men with the many phases of disease directly traceable to inebriety, few, I fancy, are alive to the vast amount of liver, brain, heart, and kidney disease which can be traced to habitual nipping, that is to say, the frequent taking of stimulants well within the margin of actual drunkenness, . . . the imbibers being not improbably persons who have never been intoxicated in their lives.

Dr. Charles Murchison observes that, "even small quantities of alcohol in healthy persons produce a temporary hepatic congestion; but if alcohol be taken in excess, or too frequently, the congestion of the liver becomes permanent, and the functions of the organ are deranged. Of course, if the congestion be long maintained structural disease may follow."

In thousands of instances structural disease does follow. Bearing in mind the poisonous properties of alcohol, nothing will appear more natural than that the liver, as mentioned by the last-quoted physician, should be an early and a chief sufferer. Nearly the whole of the ingested alcohol finds its way from the stomach by the portal vein to the liver, which for a time it stimulates to increased activity. And through the tissues of this organ it is filtered into the general circulation.

So that the drinker's liver is in speedy, direct, and continuous contact with the alcohol he imbibes. Congestion is one of the commonest results. Inflammation occasionally occurs under the influence of alcohol, but in temperate climates is comparatively rare. But the common and formidable liver disease of the inebriate is cirrhosis, or "gin-drinker's liver." The progress of the malady is thus described by Dr. B. W. Richardson, in his "Cauter Lectures," page 102 : "The effect of the alcohol upon the liver is upon the minute membranous or capsular structure of the organ upon which it acts to prevent the proper dialysis and free secretion. The organ at first becomes large from the distention of its vessels, the surcharge of fluid matter, and the thickening of tissue. After a time there follow contraction of membrane, and slow shrinking of the whole mass of the organ in its cellular parts. Then the shrunken, hardened, roughened mass is said to be 'hob-nailed,' a common but expressive term. By the time this change occurs the body of him in whom it is developed is usually dropsical in its lower parts, owing to the obstruction offered to the returning blood by the veins, and his fate is sealed."

"Gin-drinker's
liver" described
by Dr.
Richardson.

Enlargement by fatty degeneration is yet another disease of the liver occasioned by strong drink. Again, diabetes is closely allied with liver derangement, and there is ample reason to believe that alcohol predisposes to this terrible and fatal ailment.

According to a large body of medical testimony liver disease is largely on the increase. And beyond all question one of its most common causes is the entirely gratuitous one of alcoholic poisoning. The evil consequences are not restricted to the organ primarily affected. The liver is a great cleanser, and injury to the whole system must follow any interruption or impeding of its functions.

The pernicious drug, alcohol, sometimes selects *Alcohol and the kidneys.* the kidneys for attack. They also are important purifying organs, and interference with their ability to work must have grave issues. Here again we are told that cases of disease are on the increase, and that alcohol is accountable.

Alcohol produces fatty deterioration of the structure of the kidneys, lessens the elasticity and contractile power of their vessels, and brings about such a degenerate condition of their membranes as to allow the collodial albumen of the blood to escape through them.

Perhaps the most formidable renal malady is that known as Bright's disease (granular degeneration). Strong drink is one of its most frequent causes. Professor Christison, of Edinburgh, stated that from three-fourths to four-fifths of the cases that came under his notice in the northern capital were in the victims of inebriety. Dr. Geo. Johnson, while Physician to King's College Hospital, London, showed that out of two hundred cases which he had investigated, intemperance, either alone or in

conjunction with other influences, probably produced the complaint in fifty-two cases, or twenty-five per cent. Of these fifty-two cases excess was believed to be the sole cause in twenty-eight examples.

Where serious structural degeneration does not take place, there is often a partial failure of functional activity through which mischievous *débris* is suffered to remain in the blood. In this way it may easily happen that gout and rheumatism are contracted.

Dr. B. W. Richardson further points out that the painful disease calculus, or stone in the bladder, is frequently traceable to indulgence in strong drink, especially to the imbibing of malt liquors in excess.

*Alcohol and
the stomach,*

Very numerous are the disorders of the stomach and of the digestive system which owe their origin to alcohol. The gastric juices are weakened and hindered in their work by intoxicants. Dyspepsia and numerous attendant ills are quick to recompense the drinker's folly. As a result of intemperance the stomach may become inflamed, ulcerated, cancerous ; miserable and practically hopeless is then the victim's state.

and lungs.

The lungs are also within the scope of alcohol's deadly power. The entire respiratory system is indeed so intimately allied with the heart that it must of necessity be injuriously affected by whatever disturbs the heart's normal action. And there is such a thing as alcoholic phthisis. Con-

*Alcoholic
phthisis.*

tinual stimulation, alternated with narcotism, exhausts the springs of vitality. A cold settles upon the chest, and finds an evil ally already entrenched. With startling celerity the disease runs on, and the constitution breaks up. Cure there is none; medical skill at best can only delay the inevitable issue.

Hospital statistics, and the statements of eminent physicians, prove that a very large proportion of cases of erysipelas and of various skin diseases are assignable to the influence of strong drink.

Professor Christison, writing to an American Board of Health (1870), speaks in these terms of the effects of alcoholic excess: "I recognise certain diseases which originate in the vice of drunkenness alone, which are *delirium tremens*, cirrhosis of the liver — 'gin-drinker's liver,' — many cases of Bright's disease of the kidneys, and dipsomania or insane drunkenness. *Prof. Christison's evidence.*

"Then I recognise many other diseases in regard to which excess in alcoholics acts as a powerful predisposing cause, such as gout, gravel, aneurism, paralysis, apoplexy, epilepsy, cystitis, premature incontinence of urine, erysipelas, spreading cellular inflammation, tendency of wounds and sores to gangrene, inability of the constitution to resist the attacks of diseases at large."

Dr. Norman Kerr said in a speech at Manchester Medical Conference, 8th August, 1877, "My own experience, both in town and country practice,

has been that two-thirds of all my patients, rich as well as poor, have been indebted to drinking for either the onset or the recurrence of their illness."

The "moderate drinker" in peril.

It is time to conclude this peep into a chamber of horrors, and having established by abundant evidence the truth of the proposition that alcohol is indeed the "genius of degradation," we repeat, solemnly, that the danger is the drinkers' danger, not wholly and altogether, as so many would like to believe, the drunkards'. Sir Andrew Clark, in his address, "An Enemy of the Race" (London, 1882), says that of every hundred patients whom he attended in the London Hospital, seventy per cent. were there through indulgence in alcoholic beverages, and continues: "I do not know that one of them was what you call a drunkard. . . . No; the men to whom I allude are the men who are habitually taking a little too much; . . . day by day this little excess, often a little one, is doing its work."

Yes, a fearful and often an irreparable work, justifying and emphasising the physician's earnest "Beware!"



CHAPTER V.—UNTO CHILDREN'S CHILDREN.

Inherited misery.

THE saddest of the numberless evils that alcohol wreaks on the human family is its hereditary transmission. Contrariwise, there resides in this

momentous and absolutely indisputable fact, perhaps the most solemn and binding of all reasons for refusing to take intoxicating liquors. The mischief, physical and mental, effected by strong drink does not end with the ruined constitutions and impaired brains of a generation. It spreads a fell taint through the ranks of the descendants of its victims. Not content with wronging the present age, alcohol stores up ills for generations yet unborn. The drink crave itself reappears, and often the moral weakness that led the parent to succumb is not only reproduced, but is also more hopelessly developed in the offspring. The pathological changes occasioned by excess in alcoholic beverages are likewise, to a very large extent, hereditary. Thus, physical vice is handed down from fathers to children; thus, self-inflicted, personal penalties extend inexorably into the future, and lay grievous and unnecessary burdens on those who have no sort of responsibility for the original acts of transgression. Read aright, Nature's design in this would seem to be that disease, of whatever class or description, should work out its own extirpation by culminating in the surcease of the tainted family or species; and that man, as a reasoning creature, should recognise by its deadly results a disease-producing cause, and avoid the beginnings of disaster. But man is a dull pupil in Nature's school. Only gradually is the race coming to see that duty towards progeny, as well as every consideration of

immediate comfort and security, urges the claim of total abstinence.

Nearly a hundred years ago, Erasmus Darwin—a famous ancestor of the still more famous naturalist—wrote in “The Botanic Garden” (1788-90) these words :

An early voice.

“It is remarkable that all the diseases from drinking spirituous or fermented liquors, are liable to become hereditary, even to the third generation, gradually increasing, if the cause be continued, till the family becomes extinct.”

And since the day of that genial poet-philosopher, evidence has accumulated in official and private medical reports, in observations placed on record by unbiassed students of the seamy side of life, in the narratives of philanthropists, in the statistical returns supplied to the British and other Governments, in significant facts and statements presented on the authority of Blue Books, evidence which proves that Erasmus Darwin had bravely called attention to a phenomenon that affords ground for much national misgiving, and should make every true man and woman earnest helpers in the temperance reform.

Dr. J. Miller on the subject.

Says Dr. James Miller, in “Alcohol: its Place and Power” (London, 1857), “There is no one cause of disease in this country half so prolific as alcohol, . . . and the worst of it is, that the disease so induced does not terminate with the life of him or her that produced it. If unhappily, children are born, they will inherit the evil of

their progenitors, stunted in mind and often in body, fatuous or foolish, drink-loving or drunken in their turn, scrofulous, rheumatic, consumptive, weak, useless."

Dr. E. G. Figg asserts that "the brain of the drinker's child is as often the miniature of that of his father as is the impress of his features." *And Drs. Figg and Maudsley.*

Dr. Henry Maudsley, in his treatise "Responsibility in Mental Disease," says that children who inherit the alcoholic taint "are step-children of nature, suffering under the heel of tyranny—the tyranny of poor constitutions."

So far back as 1834, a Parliamentary Committee of the House of Commons reported that the evils of alcoholism "are cumulative in the amount of injury they inflict, as intemperate parents, according to high medical testimony, gave a taint to their offspring before its birth, and the poisonous stream of ardent spirits is conveyed through the milk of the mother to the infant at the breast ; so that the fountain of life, through which Nature supplies that pure and healthy nutriment of infancy, is poisoned at its very source, and a diseased and vitiated appetite is thus created, which grows with its growth, and strengthens with its increasing weakness and decay." *A Parliamentary Report.*

Before a Select Committee of the Commons (on Habitual Drunkards) in 1872, Dr. A. Mitchell, a member of the Scotch Lunacy Commission, stated that it is quite certain that the *Evidence of experts before 1872, Committee of House of Commons.*

children of habitual drunkards are in a larger proportion idiotic than other children, and in a larger proportion themselves habitual drunkards; they are also in a larger proportion liable to the ordinary forms of acquired insanity."

Dr. F. E. Austie, also gave evidence to the following effect: "The tendency to drink is a disease of the brain which is inherited. Where drinking has been strong in both parents, I think that it is a physical certainty that it will be traced in the children. . . . I have no doubt that many parents who were never drunk, in the old port-wine-drinking period, have transmitted very unstable nervous systems to their children." And this statement is the more noteworthy and important from the care the witness took to explain that even parents, who were never consciously or admittedly intoxicated, might transmit constitutions impaired by strong drink to their descendants. There is surely here a very serious implied warning.

*Dr. Lunier's
evidence.*

Dr. Lunier, of Paris, author of "The Production &c., of Alcoholic Drinks in France, and their Influence upon the Mental and Physical Health of the People," says: "Alcoholism strikes man not only in his own person, but also in his descendants. The children of the alcoholic parent are stamped, as it were, with a fatal sign that seals their doom, and death at an early age."

But what are the particular maladies that experience has proved to be handed down as the

result of indulgence in strong drink from father to son, and even to children's children?

Their name is Legion, although for the most part they can be grouped in certain well-defined classes. With a little trouble they can be ranged as diseases consequent on deficient vitality—which frequently perform their fatal office quickly, thus bringing about the enormous infantile mortality that obtains amongst the children of intemperate parents; as organic diseases of the great bodily organs; as diseases of the nervous system and of the mind.

*Transmitted
maladies, &c.,
due to alcohol.*

In the first division we find various scrofulous disorders, a tendency to convulsions, and water on the brain. Amongst the complaints of the second class, medical science places alcoholic phthisis, cirrhosis of the liver, structural kidney disease, and many gastric troubles, with—on the outskirts of the section—gout, rheumatism, and allied affections. In the third of these dismal but very abbreviated lists we enter, on equal authority, epilepsy, hysteria, dipsomania, idiocy, and insanity.

Total or partial absence of intellect, hereditary dipsomania, and insanity in many forms are exceedingly common afflictions amongst the progeny of drinking parents. One of the latest of American investigators of this subject, Dr. L. D. Mason, author of "Alcoholic Insanity" (New York, 1883), reports that out of 116 cases of insanity in the asylum to the staff of which he

*Scientific
testimony.*

was attached, 92 cases had parental inebriety for their principal cause.

Dr. Fletcher Beach, medical superintendent of the asylum at Darenth, recently stated that an analysis of the cases of 430 idiot children under his care, revealed the fact that 31.6 per cent. were the offspring of intemperate parents.

And with regard to the heredity of the drink crave fully developed into dipsomania, Dr. Norman Kerr was able to give striking evidence at the annual meeting (1887) of the British Medical Temperance Association. Dr. Norman Kerr presented statistics founded on an examination into the antecedents, so far as the data was forthcoming, of patients seeking a cure in the Dalrymple Home for Inebriates. He showed, that out of the 103 cases admitted since the opening of the institution nine had a family record of insanity. And no less than forty-three had a well-defined family history of alcoholic excess, the parents being the victims in seventeen instances and grandparents in six.

With the quotation of some weighty and impressive words of the same eminent scientist, addressed to the International Congress for the Study of Alcoholism, meeting at Brussels 1880, we turn from this pre-eminently melancholy aspect of the ravages of alcohol :

“It is well to state that all the evil resulting from hereditary alcoholism may be transmitted by parents who have never been noted for their

drunkenness. Long continued habitual excessive indulgence in intoxicating drinks, to an extent far short of pronounced intoxication, is not only sufficient to originate and hand down the morbid tendency, but is much more likely to do so than even oft-repeated drunken outbreaks with intervals of perfect sobriety between."

CHAPTER VI.—THE DISEASE PRODUCER NOT A DISEASE CURER.

THE last refuge of the defender of strong drink in the Courts of Hygeia is in the assumption that if alcohol is totally useless as a food, and is a minister of mischief to every organ and function of the habitual drinker's body, yet that the abstainer must, *nolens volens*, acknowledge its standing in the ranks of remedial agents. It is claimed for intoxicating liquors that they are medicines. *Is alcohol a medicine?*

On the surface this is an indifferent and insufficient exculpation. The advocates of total abstinence would find their cause but little the weaker if within reasonable limits they granted the contention, seeing that their insuperable and common-sense objection is to alcoholic liquors as the familiar beverages of daily life. The reply is at once indicated, that if intoxicants are medicines their proper place is on the chemist's shelves, and not in the cellars of an inn or the decanters of a festal board. They should

be measured and labelled by the apothecary, not by the wine merchant or spirit dealer. The invalid alone should take them, and the physician ought to preside over the whole duration of the experiment, test frequently its results, and determine the point at which it should cease. Sane men do not in health seek daily vigour from the prescriptions of the pharmacopœia. Such a suggestion would be received with deserved ridicule, or with rudeness equal to Macbeth's :

“ Throw physic to the dogs ; I'll none of it.”

And yet by some strange mental obtuseness what is meant by the plea that alcohol is a medicine is that, therefore it can be admitted as an essential and valuable part of the ordinary *régime*. To this we return a stout denial. Examination shows the deduction to be absurd, unfounded, and dangerous : absurd and unfounded for reasons given ; dangerous, because of the awfully deceptive character of the stimulant thus mistakenly commended. Many a man has been advised by some friend to take brandy or whisky for a trivial disorder, and has mastered his ailment but never recovered from the consequences of accepting the cruel counsel. All unawares he has called into tiger-like activity a drink crave that destroys him. This is a case in which it is often tenfold harder to get cured of the medicine than of the disease. There is a specious semblance of

benefit conferred by strong drink owing to the quickened circulation, the release of energy of which we have elsewhere spoken, and the narcotism of complaining nerves. And in this very property of alcohol to produce sensations of transient relief, warmth, comfort, lies the secret of the drug's captivating and ruinous spell.

But the total abstainer is by no means forced to *In suspense.* acquiesce even in the qualified dictum that alcohol is medicinally of great repute. The final word of medical science has yet to be uttered on the point, but this at least is certain now, that the tendency on every hand is to jealously restrict the employment of the drug, to order alcoholic liquors in an ever decreasing number of cases, and in ever lessening quantities, and to mistrust alcohol even where its assistance is still invoked. The time was when alcohol was regarded as the great panacea in the restorative treatment of nearly every conceivable malady. Dr. John Higginbottom, of Nottingham, who discontinued the prescription of alcohol as early as 1832, and to whom we owe the concise dismissal of the drug as "neither food nor physic," was thought to be demented by his fellow-practitioners. But time is proving that he was only in advance of the knowledge of his age. There are many to-day—and those not the least eminent or least successful members of the profession—who are following the example of the courageous and outspoken pioneer.

Dr. Higginbottom said: "During my long and

extensive practice, I have not seen a single case of disease cured by alcohol. On the contrary, it is the most fertile producer of diseases, and may be considered the bane of medicine and the seed of disease. It is entirely destitute of any medicinal principle implanted by the Creator, as in genuine medicine. . . . I have discovered a great truth, and have made a great discovery: that alcohol in every form may be dispensed with in medical and surgical practice, and is not required in a single disorder or disease."

*What the
doctors say.*

Speaking to medical students at the London Hospital, October, 1873, Dr. Prosser James remarked: "As to the medicinal use of alcohol, we have seen it go through a complete cycle of change, a circumstance that might well persuade us that it has not always been rationally employed; and that may also suggest whether we even yet understand and appreciate its properties." And this frank admission is well in keeping with an important paragraph of what is known as the Third English Medical Declaration concerning alcohol. This was drawn up by Dr. Parkes, signed by two hundred and sixty-nine of the foremost British representatives of medical science—amongst the names affixed being those of Sir George Burrows, Sir James Paget, Sir H. Holland, Sir T. Watson, Sir W. Fergusson, Sir H. Thompson, Sir R. Martin, Sir Duncan Gibb, Sir James Bardsley, Geo. Busk, F.R.S., President Royal College of Surgeons, &c. &c., and published at the

beginning of 1872. The paragraph to which we allude runs thus :

“As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.”

Measured, guarded, and moderate as are those sentences, they point clearly in the direction which scientific thought is taking. It cannot be gainsaid that as a whole the medical profession is profoundly suspicious of alcohol even in its assumed character of restorer, and is more and more drifting towards a general disavowal and active hostility. It is probable that soon an absolute majority will be found to endorse the warning to the laity placed on record by Dr. Collenette, of Guernsey : “If you value your happiness, if you value your lives, banish from your houses, from your tables, from your sick-rooms, every drop of intoxicating drinks ; for be assured they produce weakness—

A general advance to the temperance platform.

not strength ; sickness—not health ; death—not life.”

Its causes.

The cause of the marked alteration in medical belief and practice upon which we have been dwelling is not far to seek. It is the irrefutable proof which experimental research has disclosed that the physiological action of alcohol does not satisfactorily support the traditional reputé in which the drug has been held. Conscientious and painstaking investigations have shown that it is neither an aliment nor a true stimulant ; that it has no property which can aid digestion, renew force, or abate morbid symptoms—its quality of sometimes allaying pain by narcotism being here no real exception ; and that any possible gain in specific complaints from its influence in retarding decay and removal of tissue—on which stress is occasionally laid—is likely to be more than counter-balanced by its injurious effects upon the blood, and by enforced retention of poisonous *débris* in the patient's system.

And to emphasise the lessons thus taught, there has also come before the half-sceptical gaze of the medical world the still more practical and tangible proof of terrible diseases vanquished more readily without the help of alcohol than with it, and the sight of flourishing and successful temperance hospitals, under the charge of temperance physicians, and conducted on the great leading principle of rejection of the drug.

Alcohol and cholera.

It is an ascertained fact, that while total absti-

nence is one of the most reliable known preventives of cholera, alcohol is the worst of all specifics for its cure. Says Dr. Norman Kerr: "The proofs are overwhelming. In Edinburgh, during the epidemic of 1848-49, very few teetotallers were attacked. In Paisley, with a large population, some one noted down the figures, and found that whilst there was one case of cholera in every 181 of the inhabitants, there was only 1 in every 2000 of the teetotallers. In Plymouth, though hundreds died, only 1 abstainer succumbed out of 3000 or 4000 pledged teetotallers. Of all the remedies that could be applied, . . . alcohol (with the exception of opium) is the most unsafe. Alcohol not only retains the cholera poison, but retards the action of the heart. . . . Alcohol is so irritant that itself frequently causes diarrhœa, and the brandy taken to ease pain very often develops cholera more quickly. If there is any suspicion of cholera, let no one touch alcohol."

Again, a set of most significant statistics are now forthcoming relative to the crucial question of alcohol *versus* abstinence in the treatment of fever subjects. There was a period when the trust of both doctor and patient was mainly in alcohol. That time is rapidly passing away. Dr. W. T. Gairdner of Glasgow exhibited, twenty years ago, results that startled professional opinion. He found that in the Fever Hospital of the great city on the Clyde, out of 595 cases, of varying ages, treated by him, with the rarest recourse to

Alcohol in cases of fever.

Results in London Temperance Hospital, &c.

alcohol, the mortality was 11·9 per cent. ; with stimulants as the foundation of the treatment, it was $17\frac{1}{2}$ per cent. In the London Temperance Hospital abundant confirmation is being obtained of the truth of the contention, once thought fanatical, that alcohol is, as a rule, unnecessary as a medicine in cases of typhoid fever. It has been shown that the mortality there is very much less than in hospitals in which the drug is employed. Out of the 50 cases first treated, 5 died, thus giving a mortality of 10 per cent., answering almost exactly to Dr. Gairdner's figures as quoted above. Of these 5, 4 were non-abstainers, and the other was a teetotaller of only six months' standing. Moreover, one was entered on the report as "an old drinker," and there were grave complications of the fever with other possibly fatal diseases in two instances. These facts are all pertinent to the questions at issue, and to the statistics that offer such plain and unpromising answers.

Examining the figures of the London Temperance Hospital more broadly, we find as a result that that institution has a record of $4\frac{1}{2}$ per cent. less deaths than any rival taking the same run of cases in the Metropolis.

Again, the Royal Infirmary at Manchester reported recently a diminution of 87 per cent. in the amount of alcohol used as medicine, with a striking corresponding decrease of more than a-third in the death rate.

There is a National Temperance Hospital in the city of Chicago, and there some hundreds of cases of all kinds of non-contagious diseases have been treated *minus* alcohol. With this grand success, that up to the early summer of the year in which we write, not one case had ended fatally. And the Board of Managers report (1887) that as, after a year's trial, it has been thoroughly demonstrated that medicines can be *prepared* as well as constituted without alcohol, they (the Board) deem it advisable that this additional change should be made; and a rule to that effect has been added to their code.

Cumulative evidence of this complexion is too cogent to be resisted, and justifies the prescience of those prophets of the temperance reform, who, in days of abounding darkness and doubt, were firm in the conviction that nephalism was as advantageous in disease as in health, and would sooner or later be vindicated by medical science in the character not only of a protective but also of a restorative policy.

We are not bigots. There may be cases in which the drug has worth, but, in words condensed from "Conclusions" respecting the "Use of Alcohol in Hospitals," of Dr. C. R. Drysdale, senior physician Metropolitan Free Hospital: "Whilst the modesty of science forbids us to say that alcohol will prove useless in any given disease, it seems advisable to have that drug administered with far greater caution than has hitherto been

*Words of Dr.
Drysdale.*

the case. And that all mere dietaries should be free from the routine use of alcohol, which should in all cases in hospital be distinctly ordered to the patient by his medical adviser." We believe, in addition—and have reason for the faith—that greater knowledge means less alcohol.





IV.

THE PHYSICAL AND MENTAL ADVANTAGES OF TOTAL ABSTINENCE.

CHAPTER I.—A MEDICAL VINDICATION.

IT may seem that we are proposing to go anew *First words.*
over ground that has been already trodden.
If it were so the journey and the labour
might not be profitless, for much that
medical science charges to the discredit of intoxicating liquors has been left unnoticed, or entered in the accusation with a brevity disproportionate to its importance. But the main excuse for this apparent negligence—exigencies of space—would debar from even a rapid and succinct recapitulation, and we therefore take leave to assure any hesitant reader that the facts to which attention is invited in the present section, are complementary to but not identical with those already given.

To present the case for Total Abstinence is first and foremost to arraign and condemn Alcohol.

It has been our business to exhibit the great and manifold evils which that mischievous drug wreaks on the minds and bodies of those who are addicted to its use. We submit that the evidence adduced has been such as to compel an adverse finding against strong drink in every shape and form. The proof is abundant and overwhelming of the existence of frightful perils in the beginning or continuance of the drinking habit. It follows that adhesion to total abstinence principles is a great gain. The evils are escaped and the perils safely avoided by the man or woman who is a resolute abstainer.

The advantage is many-sided, and the consideration of a few of its most noteworthy phases is our immediate object.

The general health is improved and strength conserved and consolidated by a *régime* of total abstinence from intoxicating liquors.

*Three English
medical declar-
ations about
alcohol.*

There is now a general consent of the highest and most authoritative medical opinion to this thesis. Three formal declarations of the heads of the profession in Great Britain have placed emphatically on record the medical vindication of abstinence from alcoholic beverages. The first was drafted by Dr. Julius Jeffreys in 1839, and noting the existence of a rooted popular opinion that the habitual use of wine, or beer, or spirit, is beneficial to health, and even requisite for those whose daily lot is daily labour, went on to say that, "anatomy, physiology, and the experience of

all ages and countries, when properly examined, must satisfy every mind well informed in medical science, that the opinion is altogether erroneous. Man, in ordinary health, like other animals, requires not any such stimulants, and cannot be benefited by the habitual employment of any quantity of them, large or small; nor will their use during his lifetime increase the aggregate amount of his labour. In whatever quantity they are employed they rather tend to diminish it." Affirming, with conspicuous caution that a "temporary use of these, as of other stimulant medicines, "may be desirable" in sickness, the declaration added that on restoration to health a continuance of the use of alcoholic beverages will do no good, "even in the most moderate quantities, while larger quantities (yet such as by many persons are thought moderate) do, sooner or later, prove injurious to the human constitution, without any exceptions."

This outspoken document was signed by Sir B. Brodie, Sir J. Clarke, Sir J. Eyre, Dr. Marshall Hall, Dr. A. T. Thompson, Dr. A. Ure; Professors Partridge and Quain; Mr. Bransby Cooper; and sixty-nine other chiefs of medicine and surgery. Its publication unmistakably marked advance in the great contest between scientific truth and current errors relative to the attributes and effects of strong drink.

And so did the issue of the second declaration, in 1847, after an interval of eight years. This

paper was drawn up under the auspices of Mr. John Dunlop, and was signed by 2000 members of the medical profession in the United Kingdom, including Sir B. Brodie, Sir W. Burnett, Sir J. Clarke, Sir J. Forbes, Sir H. Holland, Sir A. Munroe, Sir J. M'Gregor, Sir R. Christison, Drs. W. B. Carpenter, Copland, Niel Arnott, A. Farre ; Professors Guy, A. Thompson, Miller, Buchanan, M'Leod, &c. &c.

Its statements, very much to our point, were mainly as follow :—

“That the most perfect health is compatible with total abstinence from all intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, &c. &c. That persons accustomed to such drinks may with perfect safety discontinue them entirely, either *at once*, or gradually, after a short time. That total and universal abstinence from alcoholic liquors and intoxicating beverages of all sorts would greatly contribute to the health, the prosperity, the morality and the happiness of the human race.”

Of the third (1871) British declaration we have already had occasion to speak.

*Foreign and
Colonial de-
clarations
about alcohol.*

Similar documents have been extensively signed by eminent physicians and surgeons on the Continent of Europe and in America. One published in Holland, with some 600 names attached, says : “The moderate use of strong drinks is ever unwholesome, even when the body is in a healthy state.” The Danish Medical Association adopted,

with seven dissentients, in 1885, a resolution asking, through the State Secretary for Education, "that there may be sent information to all the teachers in the public schools about the injurious effects on the human organism of the continual misuse of alcoholic liquors—lager beer included; and that it be made their duty to enlighten and instruct their scholars about this." In Canada, two years after the third English declaration was promulgated, twenty-seven Professors in medical colleges and seventy physicians of Montreal issued a signed statement, that in their belief total abstinence from intoxicating liquors, whether fermented or distilled, is consistent with and conducive to the highest degree of physical and mental health and vigour; and "that abstinence from intoxicating liquors would greatly promote the health, morality, and happiness of the people."

All this is notable and impressive evidence, and behind it is the fact, perhaps likely to weigh even more heavily in the balances of some reader's judgment, that very many members of the medical profession are now practising what they preach. We understand that there are now in Great Britain alone, nearly 900 doctors and surgeons who have adopted the principles of total abstinence from intoxicants. And this in spite of social prejudices. There are probably more who, hesitating to rank themselves in the temperance army, have little to do with alcohol as a beverage, knowing well that it is a foe to mental and

*Abstainers in
the medical
profession.*

physical vigour. At the eleventh annual meeting (1887) of the British Medical Temperance Association, the secretary reported a membership of 352 with seventy-two associates, and observed, that "the committee rejoiced that there were signs of an increasing conviction amongst intelligent men that total abstinence from intoxicating liquors was desirable." *The British Medical Journal*, 24th April, 1875, stated: It is a somewhat remarkable fact, that many of the most hard-worked professional men in London are habitual abstainers from alcohol, and have been so for some years, on the basis of personal experience, and from the fact that they have found the use of alcohol to interfere with their physical health and mental activity. Sir Andrew Clark, in his address "An Enemy of the Race," confirms this explanation in some weighty words. He says: "However pleasant alcohol is for the moment, *it is not a helper of work*. It is not only not a helper of work, but it is a certain hinderer of work; and every man who comes to the front of a profession in London is marked by this characteristic, that the more busy he gets the less in the shape of alcohol he takes. And his excuse is, I am very sorry, but I cannot take it and do my work." In the same speech Sir A. Clark used these words: "Health is that state of body in which all the functions of it go on without notice or observation, and in which existence is felt to be a pleasure. . . . *That is health*. Now, that is a state which cannot be benefited by

*Sir A. Clark
declares for
abstinence.*

alcohol in any degree. Nay, it is a state which in nine times out of ten is injured by alcohol." And he, moreover, expressed the hope that all the rising generation would be total abstainers.

But quotation after quotation could be given from the deliberate, well-considered public utterances of eminent physicians and surgeons to exhibit the favour with which they view the practice of total abstinence. The difficulty would be to know where to end. The unanimity of opinion is striking; and to all intents and purposes medical science says with Dr. B. W. Richardson : *Words of Dr. Richardson on the subject.* "To escape the evils arising from the use of alcohol there is only one perfect course—namely, to abstain from alcohol altogether. No fear need be entertained of any physical or mental harm from such abstinence. Every good may be expected from it."

We shall see how abundantly the facts of experience, both special and routine, substantiate this medical vindication of teetotalism.



CHAPTER II.—ABSTINENCE CONDUCTIVE TO PHYSICAL STRENGTH.

INCIDENTAL reference has already been made (p. 93) to experiments conducted by Dr. Parkes, *The experiments of Dr. Parkes.* with the co-operation of living subjects, for the purpose of testing the gain or loss to the power of

endurance, through, on the one hand, the taking of alcohol, and on the other, avoidance of the drug. So important and conclusive were the results, that a more detailed account may properly be given in this place. One of the earlier experiments was with a sturdy young soldier set to a three days' spell of digging without any aid from alcohol, and after sixteen days of carefully guarded preliminary abstinence, and then after a three days' rest, required to face the same amount of labour with a daily administration of ardent spirits in three measured doses. The man himself at first thought that the alcohol would enable him to do more work, but as the test went on, he was undeceived. At the end of the trial he was compelled to acknowledge that strong drink hindered labour and reduced muscular energy, and that he could dig better without brandy than with it.

Again, Dr. Parkes employed three soldiers to march twenty and a-half miles, carrying weight to the amount, individually, of fifty-one pounds. The duration of the test (first) was six days, and the conditions were such as to insure the utmost fairness, and to give the opposing systems—alcohol *versus* abstinence—an equal chance of self-vindication. The men were furnished with rum, coffee, or meat-extract and water; and each man marched two days out of the six upon one of these three sources, or alleged sources, of support. The verdict returned was unanimous.

The meat-extract and water proved to be the *régime* of most value, and most capable of sustaining exertion. The coffee came next, and the rum ration was left ignominiously at the bottom of the scale, having proved itself a cause of exhaustion rather than of genuine stimulation. The same results were forthcoming from another (second) experiment carried through with three sets of men, each set confined to the use of one of three fluids mentioned.

Experiments in the army on a far larger scale, *Military evidence.* extending over a greater period of time, and fortuitously brought about, bear out the deduction that abstinence helps work and is one of the surest and best safeguards against excessive and perilous fatigue. The experience of Sir Henry Havelock has been often quoted, but it is not the less deserving of notice. That heroic soldier remarked, that of his personal knowledge it had been "proved that the troops can make forced marches for forty miles, and storm a fortress in forty-five minutes, without the aid of rum; behaving, after success, with a forbearance and humanity unparalleled in history." He added: "Let it not henceforth be urged that distilled spirits are an indispensable portion of a soldier's ration." Writing in *Blackwood's Magazine* (January, 1871) of the Red River Expedition, in which he had taken part, Captain Huyshe said: "Never have the soldiers of any nation been called to perform more unceasingly hard work,

*Opinion of
General
Viscount
Wolseley.*

yet intoxicating liquors formed no part of the daily ration," and "even the doctors, who anticipated serious illness from the absence of liquor, will allow that no troops could have been healthier than we were from the beginning to the end of the operation." Lord Wolseley, who commanded that expedition, remarks emphatically in his "Soldier's Pocket-Book": "The old superstition that grog is a good thing for men before, during, or after a march, has been proved by the scientific men of all nations to be a fallacy, and is only still maintained by men who mistake the cravings arising solely from habit for the promptings of nature." Says Surgeon-General W. C. Maclean, Professor of Military Medicine, Army Medical School, Netley: "If there be any point of military hygiene that may now be regarded as settled beyond doubt or cavil it is this, that spirits are not only not helpful, but are hurtful to the marching soldier. . . . The evidence shows that wherever soldiers, by accident or design, have been cut off from the use of spirits on marches, on active service in temperate climates, exposed to wet and cold, or in the tropics' too ardent heat, or in laborious sieges, they have maintained their health, spirits, and discipline far better than when the once-deemed-indispensable grog was in daily use."

*A story of the
sea.*

A peculiarly significant example of the comparative effects of so-called moderate drinking and total abstinence in supporting physical vigour under extraordinary and long-continued exertion,

is given by Dr. W. B. Carpenter ("Physiology of Temperance," p. 127), on the authority of a merchant captain whose crew were the subjects of the unpremeditated test.

The ship commanded by the narrator of the incidents sprang a leak off the Cape of Good Hope, and the state of affairs became so serious as to demand incessant labour of officers, passengers, and crew, to keep the vessel afloat until she should make port. The men were at first greatly fatigued. The strain wore them down in spite of their recourse to the grog which is too often the sailor's sheet-anchor. The commander saw this, and whether he were a temperance man or no, had a happy thought. By his orders, coffee and cocoa took the place of ardent spirits, a hot "mess" of the former beverages being supplied with the dry rations at the end of every watch. It was then found that the men's strength returned, and their fatigue was lessened. After close upon three months of this continuous toil and harassing suspense, the ship reached haven, and in spite of the perils of the way, her captain was able to report all sound and well.

The testimony of those who have trained themselves, or have trained others for rowing, cycling, running, or pedestrian contests, is uniformly in favour of total abstinence. Examples abound of famous athletes, living or dead, who, on professional grounds alone would have no dealings with alcohol. The instances at once occur to memory

Abstinence and athletics.

of Captain Webb, who swam the English Channel successfully, and perished in a foolhardy attempt to descend Niagara ; of Weston, the pedestrian ; of Dr. Carver, "champion marksman ;" of "Buffalo Bill,"—practical recognition of the power of example to aid or injure the red man being here a factor ; of many of the most prominent members of the Australian cricket teams which have visited this country, &c. The *Alliance News* (December, 1886), noted the case of C. Absolom, a famous English cricketer, seventy years of age, fifty-five years before the public, and for over thirty years an abstainer, "his performances," remarked the newspaper writer, "to-day equalling those of some of the best of men in their prime."

In a letter printed in the late Mr. R. A. Proctor's magazine, *Knowledge* (10th August, 1882), Mr. W. Mattieu Williams, F.R.A.S., a renowned wanderer over beaten tracks and rarely trodden bye-paths, says :

"I have been an energetic pedestrian, have walked over a large part of England, Scotland, Wales, and Ireland, crossed France twice on foot, done Switzerland and the Tyrol pretty exhaustively ; in one walk from Paris taking in on the way the popular lions of the Alps ; and then proceeding *via* Milan and Genoa to Florence, Rome, Naples, and Calabria, then from Messina to Syracuse, and on to the East. All this, excepting the East, on foot. At another time, from Venice to Milan, besides a multitude of minor tours, and my

*Experiments of
Mr. W. M.
Williams.*

well-known walk through Norway. In the course of these, my usual average rate, when in fair training, was 200 miles per week." And having described a series of practical tests, alcohol as opposed to total abstinence, "for a fortnight scrupulously abstaining from any alcoholic drink whatever, and then for a fortnight using the beverages of the country in ordinary moderate quantity," the traveller continues :

"With the stimulants I have, of course, obtained a temporary exhilaration that was pleasant enough while it lasted, but after the first week I found myself dragging through the last few miles, and quite able to appreciate the common habit of halting at a roadside pub. or wine-shop for a drink on the way. No such inclination came upon me when my only beverage was water, or water *plus* a cup of coffee for breakfast *only* (no afternoon tea). Then I came in fresh, usually finishing at the best pace of the day. . . .

"The result is a firm conviction that the only beverage for obtaining the maximum work out of any piece of human machinery, is water, as pure as possible."

In his striking travel book, "Through Central Asia," the Rev. Dr. H. Lansdell says (1887 ed.):

"I have been an abstainer from alcoholic drinks for about a quarter of a century. In the summers of eight years I must have travelled from 60,000 to 70,000 miles, generally rapidly, round the world."

*Evidence of
Dr. Lansdell.*

The first man who scaled the snow-clad summit of Mount Blanc was Jacques Bulmer, a total abstainer.

*Personal
experience of
Dr. A. Car-
penter.*

In connection with hill-climbing and abstinence, Dr. A. Carpenter has related an interesting family experience. At the Temperance League's Breakfast to members of the British Medical Association, assembled at Ryde, in 1881, Dr. Carpenter stated: "In connection with our last Cambridge meeting, I had been doing a large amount of sedentary work. . . . After that meeting I went to Cumberland, and determined that I would set myself a task. I went to the top of every one of the Cumberland hills that is more than 2500 feet high. Every other day I did one of those hills, and took two of my sons with me. . . . After going to the top of Helvellyn, and Scawfell, and Skiddaw, I was not one bit tired, and I did not take one single drop of any kind of intoxicating liquor. I had two sons with me. One, like myself, never touched any kind of alcoholic liquor. The other—who was accustomed to take his beer every day—was unable to get to the top of either Helvellyn or Skiddaw. There was the experience of two of the same family, the one never touching alcoholic liquors at all, and the other accustomed to take one or one and a-half pint of beer a-day, yet not having the vigour, the go, or the ability to withstand fatigue in the same way that the water-drinker did."

*"Nothing
new."*

It is not a new discovery that abstinence from

strong drink promotes vigour of body. Samson is perhaps an old world case in point. The Jewish Nazarites had a reputation for strength as well as for comeliness, and the annals of the past record the notable and significant prowess of whole nations of abstainers, such as the Macrobian and the Suevi. It is not an experience limited to one age or to a few races. How striking are the accounts given by quite impartial travellers of the rude health and marvellous endurance of the Indians of the great American prairies before the white man had begun to barter his accursed fire-water for the skins of beaver and racoon. How often to-day does some wanderer in remote lands return with glowing reports of the stalwart physique, and muscles "like iron-bands" of members of tribes which are either so placed geographically as to be unfamiliar with intoxicating liquors (it is not all loss when civilisation keeps its distance) or are forbidden by their creed to taste the poison. Mr. J. Silk Buckingham stated in evidence before a Parliamentary Committee (1834) that on one occasion when he was in Calcutta "he witnessed a trial of strength between a number of men who came down from the Himalayan Mountains, and the most powerful Europeans who could be selected from the English Grenadiers and the vessels in the harbour; and that in lifting weights, hurling the discus, vaulting, running, and wrestling, each of these Indians was found equal to one and three-quarters of the

*Abstaining
natives of
India.*

Englishmen, and yet not one of them had ever tasted any liquor stronger than water."

If it should be objected that life in ancient days or in a state of robust barbarism was very different in its conditions to life as it is lived in our modern towns and cities, and that labour has not only increased in grinding severity, but has to be endured in the midst of environments which render it twice as irksome and unwholesome as it could ever be to the "noble savage" in his native wilds, we are still able to point to the test of experience, and say, that as an ally for the performance of the heaviest toil water is infinitely better than alcoholic liquor.

Hard toil without strong drink, better than hard toil with.

Dr. Thomas Beddoes, who wrote much on this topic in the early years of the century, and who based his temperance counsel to working-men on the results of inquiry and close observation, relates that he induced six anchor-smiths in one of the Portsmouth shipwrights' yards to drink water only for a week, and that as the experiment went on the men found that they could work with greater ease, and that they gained very appreciably on a gang of companion workmen who drank beer according to custom. And it would be easy to multiply instances that are embedded in the published works of competent and trustworthy inquirers into the relations subsisting between labour and alcohol. But happily, as time progresses and the temperance reform wins adherents in every rank of society, the witnesses to the truth of the pro-

position that abstinence preserves strength are becoming a great host. On the morning of Christmas Day, 1886, there assembled at the Lambeth Baths, on the invitation of the late Rev. G. M. Murphy, a band of working-men, each with a story to tell for the benefit of partially enlightened comrades. A series of short, pithy speeches were given. Said a bargee, He had worked on Thames' side nearly all his life. He had practised total abstinence six-and-twenty years. It was all nonsense to say that men couldn't do hard work without beer. He had noticed for a long while that those who drank most did least, and even that little indifferently. A working bricklayer testified to the physical and financial gain of forty-five years of teetotalism, and earnestly commended his own example to everybody. A navvy said he had been an abstainer eighteen years, and out of work or in, either for work or for play, teetotalism was best. As he had found it so he spoke of it. An iron-wharf foreman related his experience of twenty-seven years' total abstinence, and said that at first (like many another) he had had a notion that going without strong drink wasn't quite the thing for his work. But he tried, and found that notion a mistake. Now, at sixty-five years of age, he not unfrequently had to lift four or five hundred-weight of iron. Sobriety had made him a happier and better man. This is but a selection of the evidence, and in each case a necessarily

*Evidence
obtained at a
Christmas
party.*

truncated report. But the validity and weight of the testimony cannot be contested.



CHAPTER III.—THE TEST OF EXTREMES.

NEITHER period nor place nor climate has hitherto been revealed for which total abstinence from alcoholic beverages is not plainly indicated by the facts of experience as the safest and wisest policy. Intoxicating liquors are useless and harmful anywhere and everywhere. The abstainer has the advantage of the non-abstainer whether subjected to intense heat or appalling cold, whether soaked to the skin for long hours in mountain mist or crossing arid African plains, whether in the tropics or pushing an adventurous passage towards the North Pole. The proofs are to hand in many a medical treatise and many a volume of travels. The late Dr. John Cheyne, of Dublin, states that he was led to misdoubt the current fancy that alcohol recruits exhausted physical energy by a personal experience. He had to undertake a long coach journey. Five nights out of six he spent in the vehicle, travelling with hardly a stoppage close upon seven hundred miles, sleeping little and harassed by a great anxiety. For those six days and nights he lived mainly on bread and tea, and he drank no alcoholic liquor of any description. At the end of his journey he was

*Statements of
Dr. J. Cheyne.*

scarcely more exhausted than at the beginning, whereas certain fellow-passengers of the doctor who relied on wine or spirits, were completely beaten out by the fatigue and exposure of merely a night or two. And Dr. Cheyne supplements this narrative elsewhere with an account of a comparison, whisky-drinking *versus* water-drinking, instituted by two Irish graziers. Two sets of herdsmen performed the same journey over moor and fell. The weather was wildly inclement. One party of drivers was restricted to good food and water, the other set were furnished with a plentiful supply of ardent spirits. In the sequel, teetotalism scored an easy triumph. The water-drinkers were less tired by the long expedition and less exhausted by wind and wet than the tipplers.*

We assert on behalf of total abstinence that it Swiss guides. maintains the bodily powers under the strain of protracted and extreme exposure. Dr. Forbes, quoted by Dr. W. B. Carpenter, says that "as the result of his personal inquiries from the guides at Chamouni," he found that when they were out upon their winter expeditions amidst Alpine snow and frost, they never experienced any gain in the use of spirits, but considered spirit-drinking to be decidedly inimical to their power of sustaining exertion in an atmosphere of very low temperature.

There is hardly any class of men whose duties *London police.*

* See Notes.

take them abroad in all weathers and at such unseasonable hours as policemen. And these guardians of the Queen's peace are often severely tried by long spells of cold and dismal, or uncomfortably warm, watching. At a temperance gathering in Blenheim Hall, Holloway, February, 1887, all the speakers were policemen, and they were unanimous that they were better fitted for their duties by the practice of teetotalism than they had ever been as moderate drinkers. It was further stated that in the police force of London alone, there are at the present date between 2000 and 3000 total abstainers.

Scotch gillies.

Again, considerable endurance of hardship and vicissitudes of heat and cold is frequently demanded of the gillies on northern moors, particularly in the shooting season. The late Lord Cairns, a conscientious friend of the temperance cause, as well as a clever lawyer and a great statesman, had moors in Perthshire, and to his gillies he offered the choice between whisky and more innocuous beverages. The men gave each system a trial, and finally, convinced by the experiment, abandoned the whisky with one consent, and elected to rely on the non-alcoholic fluids.

*Words of Dr.
Livingstone.*

That prince of missionaries, Dr. Livingstone, wrote in 1852: "I have acted on the principle of total abstinence from all alcoholic liquors during more than twenty years. My opinion is that the most severe labours or privations may be undergone without the aid of alcoholic stimulus."

We claim on behalf of total abstinence that it ^{Cold a narcotic.} is far and away the best means of conserving the vital forces in the presence and beneath the depressing influences of intense cold. Extreme cold has this in common with alcohol, that it is first an apparent stimulant, and then a narcotic. And it is in the narcotism induced by cold that the great danger lies of exposure thereto. Many a wayfarer lost on a bitter snowy night in these isles has succumbed to the impulse to lie down and sleep, not because physical fatigue had passed the limits of endurance, but because the fingers of frost had chilled every warning nerve and steeped the senses in an awful obliviousness of risk. It is the same in latitudes more uniformly under the sceptre of the ice-king.

Now, alcohol, by its premature and wasteful release of nervous energy, is actually an auxiliary of the foe. It intensifies the peril of narcotism from the external agency of a phenomenally low temperature.

On an earlier page examples have been given of the experiences of arctic voyagers—experiences that summarily disposed of any claim of alcohol to be considered either a heat-giver or a heat-conserver. There is no difficulty whatever in supplementing that destructive evidence with constructive proofs of our present proposition. But these additional leaves from the log of the past must be few in number and succinct in contents.

Sir J. D. Hooker, who was on board the *Erebus*

Abstinence preferable to moderate drinking in cold climates.

in the daring expedition despatched in 1839, under the command of Sir James Ross, to the Antarctic Ocean, has recorded that "several of the men on board our ship, and amongst them some of the best, never touched grog during one or more of the antarctic cruises. . . . I do think that the use of spirits in cold weather is generally prejudicial. I speak from my own experience. It is very pleasant at the time. . . . But it never did me an atom of good ; the extremities are not warmed by it ; and when a continuance of exertion or endurance is called for the spirit does harm, for then you are colder or more fatigued a quarter or half-an-hour after it than you would have been without it."* (Quoted by Admiral Sir J. Sullivan, K.C.B., in Exeter Hall, 7th February, 1878.)

The gallant company of men who constituted the last English Arctic Expedition (1875-76) were forced, as all the world knows, to return prematurely owing to a terrible outbreak of scurvy. In the crew of the *Alert* were five total abstainers, four of the number remaining staunch to the end. On board the *Discovery*, one teetotaler sailed. The hardest workers in the sledging parties sent out from the *Alert* were the four thorough-going abstainers. One of these will ever rank as a true hero of temperance. Brave Adam Ayles escaped the scurvy ; did a hundred and ten days of sledging—said to be one of the stiffest conceivable kinds of labour ; was out of his vessel, toiling

Feat of Adam Ayles.

* See Notes.

over ice in the most rigorous cold, for eighty-four days; suffered nothing from sickness; and finally, buried an emblem of Good Templarism in a cavern farther north than any other explorer has been able to penetrate. This is the record of unwavering abstinence. It is unique, and may well excite the drinkers and the drink defenders' envy. It ought to lead to earnest, honest reflection.

And yet again, the late Colonel F. Burnaby, Colonel F. Burnaby's evidence. author of "A Ride to Khiva," informs the readers of that popular and fascinating book that he found the most suitable drink in the bleak north to be hot tea. He states that "this beverage becomes an absolute necessity when riding across the (Russian) steppes in mid-winter, and is far superior in heat-giving properties to any wine or spirits. In fact, a traveller would succumb to the cold on the latter, when the former will save his life." The evidence of this gallant and lamented explorer cannot be set aside as the *ex parte* statement of a temperance fanatic.

On behalf of total abstinence we claim further that it is a policy of protection against the dangers of excessive heat. Tropical diseases and totalism. The testimony of residents in hot climates, and the statistics of relative mortality amongst abstaining and non-abstaining soldiers on the Indian Army Establishment, are conclusive upon this point.

Dr. Mosely, in his treatise on "Tropical Diseases," says: "I have ever found, from my own knowledge and custom as well as from the custom

and observation of others, that those who drink nothing but water, or make it their particular drink, are but little affected by the climate, and can undergo the greatest fatigue without inconvenience."

*Evidence of
Sir C. Napier ;*

Sir Charles Napier has related that, out of forty-four men who on one occasion, beneath a burning Eastern sky, were attacked by sunstroke, he was himself the sole survivor. Accounting for his fortunate escape, "I do not drink," said he; "that is the secret. The sun has no ally in the liquor amongst my brains."

*General Sir W.
F. Williams ;*

General Sir W. F. Williams, the defender of Kars, says: "I am indebted to a gracious Providence for preservation in very unhealthy climates; but I am satisfied that a resolution, early formed and steadily persevered in, never to take spirituous liquors has been a means of my escaping diseases by which multitudes have fallen around me."

*Dr. Norman
Kerr ;*

As regards Asiatic cholera in its native haunts, it is certain that the abstainer stands in a position of relative security. Dr. Norman Kerr quotes in "Cholera: Its Prevention and Cure," a statement of a Hindoo physician as follows: "The people who did not take spirits or opium do not catch the disorder, even when they are with those who have it," and adds, "Of 18,000 British soldiers in India during one attack more than half died during the first twelve days—free indulgence in drink being the chief cause assigned. Though the cholera has always been in Bengal, yet there is a different army in India now from what we used to have there. We

now have something like 12,000 men of the Indian army who are teetotallers, and thus the surgeons (*vide* their own testimony) do not fear cholera as they used to do."

Regimental returns as to comparative sickness *and of statistics.* and mortality of abstainers and non-abstainers amongst the English troops in India have come to hand, and uniformly exhibit figures which substantiate all that is here urged for total abstinence. There is a little magazine called *On Guard*, issued under the auspices of the Soldiers' Total Abstinence Association, and in the number for September, 1886, a paper was published giving statistics relative to the habits and health of the 1st Battalion Leinster Regiment, stationed at Fyzabad. There was here shown in tabulated form a comparison between 267 abstaining soldiers and 565 non-abstainers during a period extending from 1st January, 1884, to 30th June, 1886. It will be seen that the abstainers form practically one-third of the total. We extract the figures that concern the question of health.

	Abstainers.	Non-Abstainers.
Invalided to Hills,	20	89
Admissions to Hospitals,	446	1946
Invalided to England,	9	34
Deaths,	2	11

The great *excess* disproportion is visible at a glance.

In the annual report of the S. T. A. Association for 1885-86 a budget of health and other statistics,

gathered from various parts of India and equitably tabulated, was given. The items under the head of "Disease," are subjoined.

		Total.	Percentage.
Hospital.	{ Abstainers, . .	1812	45·55
	{ Non-Abstainers, .	8887	100·65
Deaths.	{ Abstainers, . .	11	·27
	{ Non-Abstainers, .	84	·95
Invalided to Hills.	{ Abstainers, . .	75	1·88
	{ Non-Abstainers, .	338	3·82
Invalided to England.	{ Abstainers, . .	24	·603
	{ Non-Abstainers, .	259	2·93

The total of men included in the test was 12,807, composed of 3978 abstainers and 8829 non-abstainers. The results are very striking.

*Abstinence in
malarious
climates.*

Lastly, in this chapter, we assert, on behalf of total abstinence, that it is a salutary and protecting habit for climates notoriously pestilential to Europeans. It is the abstainer who may most confidently hope to resist morbid influences. The experience of the march to Coomassie, in the Ashantee campaign of 1873-74, is a proof in point. According to the quite unprejudiced statements of newspaper correspondents, two out of every three soldiers who took the ordinary rum ration had to fall out of the ranks from illness; but of the total abstainers only one out of six.

The men found that an ominous langour steeping every sense was the lightest sequel of recourse to alcoholic beverages, but that to abstain was to be comparatively safe.

CHAPTER IV.—TOTAL ABSTINENCE
AND MENTAL WORK.

AMONGST the most sinister of the physiological effects of alcohol medical science ranks, as we have seen, the wanton interference of the drug with both the substance and the faculties of the human brain. It may appear for the moment that the individual who has recourse to strong drink is thereby stimulated, is able to think more rapidly, and to give expression to thought in readier speech, or with an easier flow of eloquent sentences from the pen. But science and experience unite to shatter the illusion that in consequence of these phenomena intoxicating liquors—valueless for physical labour—are serviceable for the man or woman who leads a sedentary life, and toils with the brain. A more perilous illusion it would be difficult to find. *A delusive phenomenon.*

It is true that alcohol is the cause of the blood current setting towards the brain with new velocity and flushing the wonderful net-work of finest tissues, and that thus a feeling of comfort, of exhilaration, is generated. That, moreover, nervous energy is released, and the subject may actually grasp ideas more swiftly, and be excused for supposing that this is gain. But behind these agreeable sensations there are a totally different set of consequences. Keeness of perception is dulled. Ability to reason out a troublesome enigma by sheer mental application is lessened.

Obscurity, to a greater or less degree, comes in the place of coherence. Says Dr. B. W. Richardson: "The rapidity of nervous action is rebuked by negation of result. As in a 'wheel of time,' when the motion of the wheel is moderate, we discern clearly different colours, but see them all in one single colour when the motion is increased, so in the wheel of thought, when it spins too rapidly, imagination, fact, memory, judgment, feeling, order, expression—all these primitive attributes which make up the spectrum of the mind—run into each other, causing confused ideas, meaningless labour, irritable exhaustion."

In short, the edge is off the tool. And the more alcoholic beverages are resorted to for aid in mental effort, the greater are the accompanying risks. Alcohol diminishes working force and impairs the power of concentrated thought. To conserve vigour of intellect, and endure with the minimum of discomfort and danger the strain of close mental application, a policy of total abstinence is required.

The habits of eminent students, as is well-known, vary widely, and are not always marked by close obedience to the rules of prudence. Many a brilliant mind has been prematurely lost to science, art, or letters, through reckless disregard of plain hygienic laws. But it is certain that the great bulk of the mental labours which have conferred benefit upon the world and renown upon the workers have been undertaken and carried

through by men and women sceptical of any good to be gained from alcoholic indulgence.

This fact is, on the whole, strikingly exhibited in Mr. A. Reade's book, "Study and Stimulants" (London, 1883). The editor publishes letters or quotations from 126 of the foremost nineteenth-century brain-workers, of various nationalities, and in a concluding survey of this important body of testimony is able to state that of all his correspondents and contributors, "not one resorts to alcohol for stimulus to thinking, and only two or three defend its use under special circumstances—'useful at a pinch,' under 'physical or mental exhaustion.' 'Not one resorts to alcohol' for inspiration" (page 181). And Mr. Reade draws the amply warranted deductions, "That almost every brain-worker would be the better for abstinence," and "that all work done under the influence of alcohol is unhealthy work."

To further support the proposition that total abstinence is the best rule of life for those engaged in intellectual labour we cite a few (there are many on record) typical examples of men of eminence who have applied the principle and reaped the advantage.

John Locke, the author of the essay "On the Conduct of the Understanding," was an incessant worker, and, although physically frail, lived to old age. In Locke's "Life," by Lord King, it is stated that the philosopher's diet was the same as other people's, "except that he usually drank nothing

Alcohol and study.

Some eminent abstaining brain-workers.

John Locke.

but water ; and he thought that his abstinence in this respect had preserved his life so long, although his constitution was so weak."

S. C. Hall.

The late Mr. S. C. Hall, a voluminous writer, and for a lengthy period editor of the *London Art Journal*, testified "that since he had become a teetotaller, he had an increase of intellectual powers," and "was able to work three times longer than ever he could while he indulged, even moderately, in the use of strong drinks."

M. Chevreul.

A representative of the *Pall Mall Gazette* interviewed the famous chemist, M. Chevreul, on the occasion of his completing his hundredth year (September, 1886). The reporter said that the eminent centenarian "attributes his extreme longevity to his simple and regular system of living, and to moderation in his habits. Early in youth he contracted a great repugnance for wine and liquor of all kinds, and has never allowed a drop to cross his lips—a point for the teetotallers."

Dr. Temple.

The present Lord Bishop of London (Dr. Temple) stated at a public meeting in Torquay, 10th September, 1882, that since abandoning intoxicating liquors he had felt less weariness in the work he had to undertake, and continued :

"That sort of experience, you know, is an experience which it is very difficult indeed for a man to get over. Whatever arguments I may hear about it, it is impossible for me to escape from the memory of the fact that I have found myself very much better able to work, to write, to read, to

“speak, and to do whatever I may have to do ever since I abstained totally and entirely from all intoxicating liquors.”

Everyone is aware that in these exciting days political duties, added to professional cares, must constitute a heavy load. Now, Sir Richard Webster, M.P., is Her Majesty's Attorney-General (1887), and has a reputation as one of the ablest of living lawyers; and, according to his own declaration, has done his work during recent years in the main without recourse to alcoholic beverages. In reports of a recent speech these words occur :

“There has been a great deal of discussion in past years as to whether work is better done by persons who are total abstainers, or by those who are not. I can only say for myself that I have had as much hard and incessant mental work during the last fourteen or fifteen years as any man living. Up to some seventeen years ago it had been my habit to take wine as an article of food with my lunch and my dinner. After reading certain books, however, on the subject, I came to the conclusion that wine was not a food either for the blood, the brain, or the nerves, and therefore, without becoming an absolute total abstainer, I have lived for over ten years taking only water or tea as a beverage. I have never found the slightest difficulty in doing the hardest mental work ever since, and though I will not say that I have done my work better than those who are not

Sir R. Webster's evidence.

abstainers, I can honestly say that I think I have done it no worse."

With the noteworthy witness borne to the value of total abstinence principles, and to their usefulness in sustaining strength under continuous mental exertion, by one whom men of all sects and parties unite to honour for his great qualities of head and heart, we pause in these extracts from the records of practical experience.

A thrice repeated testimony from Sir E. Baines.

Sir Edward Baines, of the *Leeds Mercury*, pressman, politician, and ardent social reformer, was able to say, as far back as 1852, that he had then been a total abstainer for fifteen years, and during the whole of that time had enjoyed robust health, with scarcely a day's interruption, and that he believed he had done more work with more *verve* and power than he could have accomplished if he had habitually taken intoxicating liquors. And at a great meeting in Exeter Hall, February, 1878, he said :

"After many years of editorial and political work, I was called at the age of fifty-nine to enter Parliament, where I spent fifteen years in charge of the business of a great borough (Leeds), and taking interest in the concerns of the Empire through several eventful Parliaments. Not one glass of wine or ale ever touched my lips, and *in consequence*—not in spite of it, but *in consequence*, I say—I was able to do almost as much work as any man in the House. I left Parliament absolutely unscathed, and all but unworn."

And Sir Edward Baines is of the same mind still. On 8th November, 1887, the teetotal jubilee of this grand temperance veteran was celebrated by an enthusiastic gathering in the Leeds Albert Hall, and at the age of eighty-seven Sir Edward again paid earnest eloquent tribute. in the presence of his fellow-townsmen and a host of friends, to the worth of total abstinence.

Philosopher, writer, scientist, cleric, lawyer, and philanthropic men of business, stand upon a common platform, and with one voice bear witness that they — brain-workers all — have refused the factitious and illusory help of alcohol, and have found their work easier and their health more stable through the seeming sacrifice. The moral is obvious.

We shall shortly see, moreover, that abstinence secures against some of the perils of mental overwork.



CHAPTER V.—A SAFE PATH.

ALTHOUGH contempt for danger is a prominent feature in the character of the ideal hero or heroine, common-sense suggests that it is a quality, that, in the absence of any great emergency or sudden, transcendent need, should be under the guidance of enlightened discretion. The wise man will not rush into peril for peril's sake. To do so is to be foolhardy, not courageous. More-

over, where success in life is the objective, reason insists that unnecessary risks shall be avoided. The aim is high, every nerve must be strained to reach it, and to the majority of competitors triumph is only possible when all vain hazards are shunned, and when the full control of every faculty, physical and mental, is maintained intact.

And herein exists a farther commendation of the practice of total abstinence from alcoholic beverages. It is a safeguard which few can afford to despise, and which experience shows to be essential to the good fortune of many.

*Efficiency of
senses secured.*

Total abstinence protects the efficiency of the senses—sight, hearing, feeling, and the others. The narcotism of nerve and degradation of tissue produced by indulgence in alcohol mars the delicate mechanism through which impressions are received or conveyed. This narcotism fully developed is intoxication, but it can work much irreparable mischief short of that stage. It affects the eye,—and the man in the signal-box blunders and sends two trains into collision, and dozens of souls into eternity. Strong drink has been the cause of many an awful railway accident. In the early days of the iron road George Stephenson wrote: “If a railway company allows drink to be sold at their stations they ought not to be surprised if some of the men occasionally get intoxicated and neglect their duty; and when they consider that the slightest inattention of an engineman, a guard, a pointsman, or signal-

*Words of Geo.
Stephenson.*

man might be productive of the most fearful consequences, it seems impossible to take too much precaution." The lapse of time, the multiplication of railway lines, and the numerous catastrophes, have but added force to that solemn warning. Every railway servant would do well to take to heart the words of the father of their industry, and adopt the easy "precaution" of walking in the safe ways of teetotalism. Alcoholic beverages affect the faculty of hearing. There is an instrument known as the audiometer—a measurer of sound. By tests through the medium of the audiometer it has been ascertained that the ear of the abstainer can detect sounds that have no existence for a person ever so slightly under the influence of alcohol,—other factors in the experiment of course being equal. And the like phenomena of restriction of range and deterioration in quality occur under varying manifestations with the other senses when intoxicating liquors are taken. In each and every case the highest refinement of sense is found to be only compatible with total abstinence.

*Test of the
audiometer.*

Complete avoidance of strong drink is the only safeguard against the peculiarly subtle treachery with which alcohol assails the mentally or physically exhausted man or woman. There is especial danger in recourse to the drug in hours of weariness or depression, however produced. Unfortunates in a very real sense are those who, in this age of high pressure, seek in stimulants power to

*Dangers of
resort to
alcohol in
seasons of
fatigue.*

perform the task that grows ever more burdensome, and sends them ever more frequently and for larger doses to the wine-cup or the spirit-flask. The men who do this defy Nature to their cost. They need not hope to escape. Sooner or later the account will be rendered and payment exacted in the shape of an ugly breakdown. Baron Liebeg says of the spirit-drinker under such conditions, that spirits will enable him to make up the deficient power by their immediate action upon his nerves, yet only "at the expense of his body, to consume to-day that quantity (of energy) which ought naturally to have been employed a day later." Dr. J. Milner Fothergill, writing in *Good Words*, 1882 (p. 574), on "Work and Overwork," says: "When overwork calls in alcohol to its help, the unholy alliance quickly works the most disastrous results, and brings the organism swiftly to general decay. Even when the evil results of the deadly combination are not so marked, general deterioration is manifest in impaired power of labour, in inferior work, in lessened hours of toil. . . . Overwork, combined with alcohol, is a sure and certain road to body ruin."

*Opinion of
Dr. J. M.
Fothergill.*

And yet the ignorant and the unwise talk glibly of alcohol as a "Pick me up," &c. ! Misuse of a title could hardly further go.

In the case of the exhausted brain-worker, the peril is even heightened. Of all men he is the most liable to the assault of the foe, and the most

likely to be deceived by the specious and traitorous promise of present help. Mental labour is not in itself injurious to health and a shortener of life, but when it can only be performed under the spur of alcohol, it becomes a gradual process of suicide. Every alcoholic fillip to the flagging powers is distinctly harmful, and harmful in a cumulative degree. And, in addition, the very kind of fatigue produced by excessive mental toil is a temptation to lean yet more heavily upon the dangerous prop. For this reason the *Lancet*, in a special number for students (1887), has quietly observed: "Stimulants may, in most cases, be omitted from the diet with advantage." In total abstinence alone is there absolute security.

In an article on "Change as a Mental Restorative," in the paper just quoted (*The Lancet*), from the pen of Dr. J. Mortimer Granville, a leading authority, and one who is at least not biassed in favour of ultra-temperance views, the following confirmatory words appeared: "Before leaving the subject . . . let me embrace the opportunity to say a word by way of caution in regard to the mistaken measures too often taken for the *relief* of what is supposed to be 'overwork.' . . . The reckless routine prescription of stimulants and mild sedatives is one of the most unsatisfactory and unscientific of practices. Alcohol cannot possibly be harmless in cases of the class we have been considering. Over-stimulation of the lower centres is the very evil we have to dread and most

*Opinion of
Dr. J. Mortimer
Granville.*

sedulously strive to avoid; and alcohol never increases the power of the higher centres; it can only for the moment irritate them, and in the long run lower their nutrition."

*Case mentioned
by Dr. A.
Carpenter.*

Dr. A. Carpenter has recorded a case that came under his own notice of two men suffering from the same kind of brain disease, which, in both instances, was believed to be the result of overwork. Both had been in the habit of taking intoxicating liquors. Now, one continued the practice, while the other abandoned it. In the sequel, says the narrator, the one who gave up strong drink "got rid of the cerebral condition which was his bane," and found his health restored. The other died.

Over-stimulation is no cure whatever for overwork, either of body or of brain, but, on the contrary, is sure to intensify existing evils. In deference to the law of self-preservation, alcohol, in every shape and form, must be avoided.

*Moral dangers
from alcoholic
indulgence.*

It is but a step from this point to another which demands at least equally grave and patient consideration. Total abstinence is the only safeguard which has been tested and has never failed, against the sapping and mining by alcohol of *character*. Does anyone say that this is not within the four corners of the present section as defined in its title? We respectfully differ. The relation between mind and morals is intimate and complex, and divorce is impracticable. And alcohol by its action on the brain

and on the higher nervous system has often stealthily transformed honour into dishonour, rectitude into vice, veracity and candour into deceit and insincerity. This is one of the worst counts in a black indictment.

The will of the abstainer is under command of the loftier faculties of his nature, and obeys the dictation of conscience, or, at the lowest, of prudence. Not so that of the individual on whom strong drink is producing its direst effects. Here the animal in man usurps dominion, the passions are released from the restraining leash, and the will is at the mercy of these capricious tyrants whose course is towards destruction. To the triumph of every evil influence alcohol ministers. When the evolution of the habitual drinker into the habitual drunkard is complete, morality ceases very often to be anything more to the victim than an idle name. Regard for truth—which may be looked upon as a fundamental virtue—is ruinously weakened, if not altogether destroyed. Broken promises are as plentiful as withered leaves in autumn and produce no genuine remorse, though kindly reproach on account thereof may fill the bleared eyes with senile tears. A miserable cunning grows to be part of the inebriate's being, and how unscrupulous in its exhibition is this evil quality, many a nurse in hospital ward, or keeper in "retreat" has found. Self-respect perishes, hope of rehabilitation dies with it, and from depth to depth the wretched dram-drinker

sinks. It is a descent into the very pit of moral corruption. The man who is the subject of chronic alcoholism in its worst and most inveterate form, would be an infinite gainer if he could exchange lots with some savage, innocent of civilisation with its fire-water. He is in close promixity to the lowest animals.

It is a piteous sight—this that is so common, of once upright men wrecked in reputation, and depraved in their moral nature through the influence of one fiendish agency, of virtuous women dragged into the mire and blighted in every faculty of their soul by the same curse.

And the tendencies to the deterioration which evokes even more surely compassion than blame—by reason of its frightful extent—are frequently visible in the lives of those who would boast that they are “rarely the worse for liquor.” This is the testimony of skilled observers. Moral tone is lost at the same time that the intellect is impaired, and in numberless instances it happens that relatives and friends see both effects before the unfortunate subject is awakened to the fact of their existence. Sir William Gull has declared his solemn conviction that less harm is done on the whole by drunkenness than by a use of alcohol which passes for “moderation.”

*The
Century
upon this.*

Said a writer in the *American Century Magazine* (December, 1883): “The drinking habit is often defended by reputable gentlemen, to whom the very thought of a debauch would be

shocking, but to whom, if it were only lawful, in the tender and just solicitude of friendship, such words as these might be spoken: "It is true that you are not drunkards, and may never be, but if you could know what is too evident to those who love you best, how your character is slowly losing the firmness of its texture and the fineness of its outline; how your art deteriorates in the delicacy of its touch; how the atmosphere of your life seems to grow murky, and the sky lowers gloomily above you; you would not think your daily indulgence harmless in its measure. It is in just such lives as yours that drink exhibits some of its most mournful tragedies."

Yes, it is the daily unconsidered tippling that is the secret worm gnawing at the roots of character, and bringing into the dust many a fair fame. Somebody has said that "having a drink" may almost be termed the latch-key to everything that is vicious. The temptation is continually confronting the non-abstainer, and the brain being to a greater or less extent chronically inflamed by alcohol, the ability to resist—to utter a firm "no," and stick to it—is proportionately diminished. There is an efficient barrier only in total abstinence.

Finally, under this head, total abstinence is the one reliable safeguard against lapsing into intemperance.

There are people in whose ears this will sound *The menace of intemperance.*

a hard saying, and who will resent and deny the assertion. But the statement is woefully true. For the sake of hundreds and thousands who with narcotised senses are drifting towards the precipice, would that it were not ! It is always possible to gratuitously contradict, but to controvert by argument resting on facts will pass the wit of man.

We repeat that no rival policy offers a certain deliverance from the risk of stumbling into the shame and misery of chronic alcoholism.

The restraints of family persuasion and of public opinion, the claims of those who in brighter days were dear as life itself, the need for thrift and for the husbanding of resources physical and material, the force of moral and spiritual considerations, have all proved but bands of flax in the fierce flame of the passion for strong drink. Good resolutions, and self-imposed regulations, have shown themselves utterly wanting in real preventive efficacy. The phenomenon is merely that of a given cause producing a given effect. The action of the narcotic acrid poison, alcohol, is a combined benumbing and inflaming action. The drug creates thereby a dangerous artificial want, and the drink crave, in its several degrees, is present in the system of the man who imagines that he is a moderate drinker, in that of the occasional inebriate, and in that of the habitual drunkard. Here is the scientific key to the ghastly recruiting which is continually going on

before our eyes, of the most abandoned of these three arbitrary classes from the constituents of the division next on the inclined plane, and to the gradually multiplying lapses of many a "moderate." The evolution is upon natural lines, although the originating cause is the most sinister of all humanity's "many inventions."

The victims are to be met with in every station in life. They constitute a doomed army, the numbers of which can only be approximately estimated by indirect aids. The lowest calculation places the number of habitual drunkards in these islands at 60,000, and is probably under the mark very considerably. The metropolitan apprehensions for drunkenness—of course in many cases for casual intoxication—numbered 20,658 in 1887, and were in the proportion of 3·772 per 1000 of the population. Eminent physicians state that, in their belief, from 80,000 to 100,000 human beings die annually in the United Kingdom from the direct effects of alcoholic drinking. Such figures as these are truly startling, yet can convey but a very inadequate impression of the wide-spread havoc which intoxicating liquor produces. It was a brewer (the late Charles Buxton, M.P.), who said: "There are 500,000 homes in England in which home happiness is never felt through the one vice of intemperance;" and further: "The great struggle now going on between the schools, free libraries, and the Churches of the land upon the one hand, and

*Numbers of
the habitual
drunkards.*

*Remarkable
words of C.
Buxton, Esq.,
M.P.*

the drink traffic on the other, is nothing more nor less than part of the great struggle which is being waged between heaven and hell."

A mixed host.

In the ranks of the ruined are to be found the learned and the illiterate, the clever and the dull, gentle and simple. Strong drink respects neither class nor—pity of pities—sex. With some, the appetite for alcohol has been born. It is more inalienably their inheritance than land or houses. For these folk to tamper with alcoholic beverages at all is almost infallibly to become drunkards. The odds are against them from the first. In other instances, the mad passion for intoxicants is fostered by temperament, and again downfall is swift. The crying evil of female drunkenness—which current statistics show to be largely on the increase—is to some extent thus accounted for.

Female intemperance.

The finer feminine susceptibility plays into the hands of the enemy, and, in conjunction with the *ennui* that rules the lives of many women, both married and single, and with periods of physical weakness, renders them an easy prey if once the drinking habit is formed. In the practice of total abstinence is the sole assurance for any woman, whether high in social status or of humble rank, that she will not be yet another instance of the most terrible mental and moral declension. Remembering the sure heredity of alcoholic influence, women, for the children's sake, if for no other cause, should be consistent abstainers. And there is another impelling

reason, in which the whole community is interested—to maintain a lofty ideal of womanhood as—

“The best half of creation’s best.”

Because it is a solemn, sad truth that in either sex the brightest natures, the most sensitive spirits, are often enslaved first, we urge that alcohol should be avoided even by those who imagine that by reason of native refinement they, at least, will never be entrapped into excess.

Does any one say that in resolute adherence to “moderation” there is practical security? The answer is threefold. We dispute altogether the fitness of the term as applied to the drinking of an unnecessary and throughout the entire region of its physical and mental influence an injurious drug. And then the standard of “moderation” remains to this hour undiscovered. It must inevitably vary very widely indeed with varying idiosyncracies; and, moreover, most drinkers seem to find that it varies from stage to stage of the journey of life in the individual instances. The utmost limit of safe advance one year is the utmost limit of momentarily satisfying indulgence the next. Precise definition is impossible. Thirdly, this so-called moderate drinking prepares the soil for drunkenness. It works mischief secretly and imperceptibly; and by paralysing the power of self-control and obscuring the senses brings its victim in myriads of cases to the verge of inebriety, while all-unconscious that the

*“Moderate”
drinking is
unsafe.*

*Reasons for
statement.*

bounds of moderation have been passed. Strong drink in its nature is deceptive, and the dupes whom it binds in its fatal chains are always at the outset "moderate drinkers"—never total abstainers. No man can say who amongst the votaries of intoxicating liquors is safe and who is not. Every slave of intemperance has become so by degrees and in his own despite. It is the treachery of alcohol that has made him what he is. Men are weak, and alcohol is verily strong—strong to make paupers of the wealthy, sluggards of the industrious, invalids of the hale, desperadoes of the gentle, imbeciles of the shrewd and the clever, degraded outcasts of those in every class of society who were once upright and respected. It is the plain teaching of a world-wide experience that in total abstinence exists the only real safeguard.

*Summary of
Sections III.
and IV.*

Again, a concise *résumé* may have its value. In these latter allied sections we have seen how detailed and exhaustive is the impeachment that the best medical science of the age brings against alcohol, how research has revealed mischiefs many and grave occasioned by this pernicious agent whenever and wherever it has been able to exert its baleful influence within the human body—to blood, blood-vessels, heart, brain, each great organ and every nerve and tissue. We have seen that alcohol is uniformly a disease-producing power, and that there is little reason to think

that it has any valid set-off in a plea that it is also a disease-curer. As regards such formidable maladies as cholera and typhoid fever we have noted that irrefutable evidence shows a non-alcoholic course of treatment to be most successful in saving patients.

On the other hand, we have seen what abundant and weighty testimony is forthcoming from leaders in medical science to vindicate the practice of total abstinence as safe and wise. We have found that a huge volume of experience, gathered under most dissimilar conditions, proves total abstinence to be best for physical toil, for bodily exposure, as a preserving policy in climatic extremes and where malaria is rife, and to insure the maximum of ability for mental work. And lastly, we have taken a somewhat broader survey, and have seen that total abstinence is further commended by the fact that it is the only rule of life by obedience to which the immeasurable perils of alcoholic indulgence are absolutely avoided.





V.

THE ECONOMICAL BASIS OF THE
TEMPERANCE REFORM.



CHAPTER I.—ECONOMY OF LIFE.

*Estimate in
Times of
average value
of a life in
England.*

THE London *Times*, in a recent series of calculations having relevance to matters wide of the present subject (see leader, 10th November, 1887), estimated the average value of life in England as £159. Now, it follows that abbreviation of life on a scale large or small, reduces in precise proportion the nation's wealth. And we urge against the current drinking customs, and in advocacy of total abstinence from intoxicating liquors that alcohol produces this effect, not in any puny or indeterminate degree, but upon a scale of heroic proportions, to an extent which is a scandal and a standing ironical comment on our boasted educational progress.

*Political
opportunism
not statesman-
ship.*

That national health is national wealth is an aphorism so true that, for all their theoretical acceptance of the dictum, statesmen seem in

danger of practically overlooking the need that it should be a *generally applied truth*. Vested interests—magic is in that phrase!—block the path. There are other and shriller calls upon the politician's attention, and to these it is more convenient to listen for the moment. Yet there are eloquent figures in official pigeon-holes, and the fact is dawning upon public men that the enemy within the gates may be more dangerous to the prosperity and solidity of the empire than any menace of invasion or of detriment against which fleets and armies are a protection, and it will be more and more recognised that whatever adverse influence militates against the vitality of a people, demands watchful and declared opposition on the part of the men of affairs who guide, under Heaven, that people's destinies. The office of the prophet is but superficially usurped when we say that, in the immediate future, political leaders will be forced by the exigencies of the times, and by the pressure of public opinion, to devote to the claims of the temperance reform their most sedulous attention. There is no escape from the teaching of patent and accumulating facts. The statistics which show the relative longevity of total abstainers as compared with the drinking classes of the community, occupy no inferior place in the array of evidence which convicts alcohol of doing the nation serious economical wrong.

*Need to study
"vital" as
against
"vested"
interests.*

With as much brevity as is consistent with clearness, we wish to exhibit total abstinence as

markedly conducive to economy of life. Thanks to the published and certified results of the working of various Life Assurance Corporations and Benefit Societies, to tables issued under the authority of the Registrar-General, and to a wealth of testimony from impartial scientific investigators, the task is easy.

*A striking
report.*

The United Kingdom Temperance and General Provident Institution has been in existence forty-seven years (founded 1840), and in June, 1887, issued the following report, showing by a table the "expected" and the "actual" number of deaths during a period of twenty-one years, in its two sections :—

"The Institution comprises two distinct sections—Temperance and General. In the former only total abstainers from alcoholic liquors are assured, and in the latter are included only "moderate drinkers" of strictly temperate habits, the same care being exercised in selecting lives for each section. The premium rates of the two sections are the same; but separate accounts are kept of the mortality, funds, income, and profit of each section; and total abstainers are thus guaranteed, in the form of bonus, the full advantage of their principles. The following is a summary of the Institution's mortality experience under whole-life policies, during the twenty-one years, 1866 to 1886 :—

YEARS.	TEMPERANCE SECTION.		GENERAL SECTION.	
	Expected Claims.	Actual Claims.	Expected Claims.	Actual Claims.
1866-70, 5 years,	549	411	1008	944
1871-75, 5 years,	723	511	1268	1330
1876-80, 5 years,	933	651	1485	1480
1881-85, 5 years,	1179	835	1670	1530
1886, 1 year,	271	171	354	337
Total—21 years,	3655	2579	5785	5621

It will be seen by this that the claims in the Temperance Section are less than 71 per cent. of the "expected," while in the General Section they slightly exceed 97 per cent. of the "expected."

Comment on these figures is not required.

Experience of this character has led to the opening of separate departments for abstainers in other offices, or to the offering of special advantages to abstainers. It is a highly significant circumstance that, on every hand, the scale of favour inclines against the "moderate drinker." There is no unfairness in asserting that it is so, for all assurance companies reject proposals of known inebriates, and thus restrict the test to the two classes of total abstainers and "moderate" men. We mention a few typical cases.

One effect of this evidence.

The Sceptre Life Association was formed in 1864, with a separate section for total abstainers, and at the end of 1886, the number of temperance lives at risk was 4221, and the deaths 25, or less than 6 in the 1000, while over the entire period of twenty-two years, the death-rate had

Figures of the Sceptre Life Association.

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been 4·6 per 1000 per annum only. The sub-joined table gives the expected and actual mortality in the Temperance and General Sections for the ten years, 1877-86 :—

	TEMPERANCE SECTION.		GENERAL SECTION.	
	Expected.	Actual.	Expected.	Actual.
For 5 years ending 31st Dec., 1881, . . .	110	54	296	262
For 5 years ending 31st Dec., 1886, . . .	190	80	389	346
	<hr/>	<hr/>	<hr/>	<hr/>
Total,	300	134	685	608

The claims in the Temperance Section were thus equal to 44·6 per cent. of the “expected,” and in the General Section were equal to 88·7 per cent.

*Proofs afforded
by other
Societies.*

The Briton Life Association insures total abstainers at a reduction of ten per cent. on the premiums charged to others, and the secretary states that this deduction was allowed “after careful consideration of the experience *which we all have before us now*,” as to the superiority of the lives of total abstainers.

In the Emperor Life Assurance Office, abstaining lives are taken at a rate which is equivalent, as compared with the premiums paid by moderate drinkers, to an immediate bonus of from £3 to £7, according to age, upon each £100 assurance.

The Lancashire and Yorkshire Accident Office

grants a reduction of 15 per cent. to total abstainers on the first renewal premium, 17½ per cent. on the second, and 20 per cent. on the third and subsequent payments.

The London, Edinburgh, and Glasgow Office grants a reduction of 5 per cent. to abstainers on each of the first five yearly premiums.

In the colonies, like factors give like results. Quoting the statistics of the Government Life Assurance Office of New Zealand as printed in the *Auckland Leader* of 3rd July, 1887, we find at the beginning of 1885 in the general division, 18,129 policies in force, and under the rules of the special temperance clause, 2086. The deaths during the year in the former class were 157, and in the latter, 15. Taking the percentage, the rate was as 0·8 in the ordinary, and but 0·5 in the temperance section. The colonial newspaper remarks :

The "Auckland Leader" on Government assurance in New Zealand.

"Surely these figures are very strong arguments in favour of the disuse of alcoholic beverages, and should be well weighed by every thinking person."

Benefit and Friendly Societies present on every fair test similarly instructive results. With a notable name and a notable record of fifty-two years of growing prosperity, the Independent Order of Rechabites stands at the head of the temperance societies. At the close of 1886, the adult membership was 67,722, and the juvenile, 27,298. Repeated comparisons have been made between the bills of sickness and mortality of the

Comparisons between Temperance and Non-Temperance Benefit Societies.

Rechabite Order, and of those belonging to "general" societies. The advantage invariably rests with the former. In his "Vital Statistics of Total Abstinence," Dr. Dawson Burns quotes from the *Sanitary Review* one of these comparisons—in this instance between the Oddfellows and the Rechabites—as follows :

"Every five years the Oddfellows draw up copious returns of the mortality and sickness during the quinquennial period. . . . The mean annual mortality appears in the five years ending 1870, to have been 12·626 per 1000 ; the mean sickness per member was in the same period, 10·5 days, and the number constantly ill averaged 28·75 per 1000. These figures apply to the Oddfellows as a whole, and are therefore available for comparison with the Rechabite grand totals. Now had the mortality among them in 1874 been 12·626 per 1000 (the rate that obtained among the Oddfellows) instead of 7·4—which it actually was—the deaths, instead of 120—the true figures—would have been 205. . . . Should the Rechabites at any future time muster half-a-million (like the Oddfellows) the annual saving, were the same low mortality to continue, would exceed 2500 lives."

A significant fact.

Again, Dr. Thornley, of Bolton, published in the *Rechabite Magazine* for December, 1881, certain interesting statistics gleaned from his own Lancashire districts. He found the death rate amongst 3400 Rechabites to be 13·5 and 11·2 per 1000,

and amongst a corresponding number of Oddfellows to be 21·42 per 1000. This investigator says that in 1874, "when typhoid fever prevailed in Over Darwen, the Rechabites, out of 164 members had 3 deaths, while the Darwen Oddfellows had 19 deaths out of 620 members,—or, Rechabite death-rate 18 per 1000, Oddfellows 31 per 1000. But the publicans in Over Darwen during the same fever year died at the rate of 150 per 1000,—that is, for 1 Rechabite 8 publicans died."

And Dr. A. Carpenter at the Croydon Temperance Congress, 1886, submitted the results of an inquiry into the figures available through the working of friendly societies in and around Croydon. Taking first the Lodges of Oddfellows and Foresters he stated :

"I have figures which refer to 755 members. . . . The whole number averaged 7538 days sick pay paid to 144 members. This gives as nearly as possible an average of 10 days sick pay per year for each member in the society. . . . The deaths have been 9 per annum, or at the rate of 10·2 per 1000."

And selecting as the instrument of comparison the abstaining Order of the Sons of Temperance, Dr. Carpenter was able to add :

"Mr. Vincent, the Secretary of the Grand Division of the Sons of Temperance, gives me some particulars of his society, which now numbers 3869 members, and during the past

five years has had a mortality of 5·1 per 1000, or just half that which has affected the Foresters of this district. As to sick pay, I find from the same figures, which I have worked out on the same principle, that the average amount of illness has been a trifle over $5\frac{1}{2}$ days per member, as against 10 amongst the non-abstaining working men.”*

The lives of total abstainers are from 20 to 30 per cent. better—in the actuary’s sense of the word—than the lives of the general public. But the percentage of advantage is indefinitely increased when comparison is made between abstainers and the classes most exposed to drinking perils. Dr. Thornley’s reference to the high death-rate of the publicans of Over Darwen during a fever epidemic is no isolated fragment of evidence.





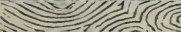






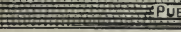
The Registrar-General’s statistics prove that under average conditions 138 publicans die for every 100 employed in 70 leading occupations.

The Registrar-General’s report on excessive mortality amongst publicans, &c.

In the supplement to the 45th Annual Report of the Registrar-General for England, there are to be found a number of tabulated statements of the mortality statistics of the ten years previous to 1885. Table “J” contains a chart displaying the average number of deaths in one year of men between 25 and 65 years of age, in various occupations, compared with the average of *all*

* See Notes.

males and of males in selected healthy districts, as under :—

500	1000	1500	2000
	Clergymen and Ministers, 556.		
	Farmers and Graziers, 631		
	Labourers in Agricultural Counties, 701.		
	Males in Selected Healthy Districts, 804		
	Carpenters and Joiners, 820.		
	Coal Miners, 891.		
	Masons and Bricklayers, 969.		
	Average of all Males, 1000.		
	Plumbers, Painters, and Glaziers, 1202.		
	Brewers, 1361.		
	Innkeepers, Publicans, Beer-dealers, 1521.		
	PUBLIC HOUSE & HOTEL SERVANTS.		2205

The cross lines indicate the two general averages which form the basis of the comparison. The classes that are thus proved to die in such alarmingly disproportionate numbers, standing at the bottom of the vital table,—which includes some avocations of recognised peril,—owe their position solely to the fact that they manufacture or aid in dispensing a drug so relentlessly inimical to life, that it will not even spare its own faithful servants. The one reason for the great mortality—which the Registrar-General speaks of as “appalling” and “incontestable”—of men directly concerned in the liquor trade is their intimate

alliance with alcohol. This alliance abbreviates life in direct ratio—other things being equal—to its thoroughness.

Total abstinence, then, is a principle of life protection.

*Relative
longevity of
prison inmates.*

It is a well known confirmatory fact that the mortality in English prisons,—where, of course, total abstinence is rigidly enforced,—is lower than over any area which could be selected where are congregated corresponding numbers of men and women. This, moreover, incidentally shows that there can be no bad or dangerous effects from abruptly cutting off the supply of strong drink. Habitual indulgence, to whatever lengths it has been carried, ceases at the prison gates, and only gain to physical vigour and to longevity ensues.

What it proves.

Summing up in a sentence, we are entitled to declare on the solid ground of statistics that are as unimpeachable as they are instructive that solicitude for economy of life inculcates the duty of forwarding total abstinence principles both by example and by precept.



CHAPTER II.—THE COST TO THE NATION OF ALCOHOLIC HABITS.

*“Wilful
waste;”*

It is difficult to know where to commence in the exhibition of strong drink as a great waster of material as well as of vital resources, and it will

be not less difficult to determine where to close. It is a dreary story to tell, a sad story, a shameful story, and one which, if it were told of some hitherto unsuspected commodity, with but a tithe of the support of uncontested proofs which are to hand to convict alcohol would cause a thunderous popular outcry, and lead to the swift expulsion of the national enemy. Happily the signs are present and are extending, that as knowledge broadens and deepens, to the destruction of mischievous prejudice, this eminently desirable result will be ultimately brought about.

The need for this peaceful revolution is becoming pressing—the cry for a strong man to aid in delivering an oppressed people is literally heard in our streets. The increased productive power of rival nations engenders a competition which is year by year growing fiercer. England's ability to hold her place at the head of the trading and manufacturing nations of the earth is being put to sharp proof. Her commercial fame is distinctly menaced. And if this country is to grapple successfully with the difficulties of a changed and changing situation, every unnecessary burden must be laid aside, every disadvantageous condition which is open to remedy must be remedied, and all resources of capital and substance, of energy and skill, must be put to the best use. Chief amongst the drawbacks that hamper and weaken the community is the expenditure on intoxicating liquors. Heaviest of all fetters are the drinking habits of the people. Most formid-

*may lead to
"woful
want."*

able of all the causes that occasion useless leakage of vitality, of money, and of every form and species of power, is the national regard for alcoholic beverages. As was observed before (*vide*, p. 173) statesmen are beginning to see this. Speaking at Sunderland, 20th October, 1887, Lord Randolph Churchill is reported to have said :

*Speech of
Lord
Randolph
Churchill.*

“The amount of money the British people spend in drink yearly is something enormous. I forget the exact amount, but it is certainly some scores of millions. Now, imagine that by some reasonable, wise legislation, we could diminish the fatal facility of recourse to the public-house or gin-shop, a very large proportion of these scores of millions of money would be diverted from the liquor trade, and would flow to other trades in England. All the trades would benefit, more food would be purchased, and better kinds of food ; more clothing would be purchased, and a better kind of clothing ; more furniture would be purchased, and a better kind ; more education would be given to the children, and a better kind of education ; and in every way in which that money could be diverted from the liquor trade, the other trades of this country would benefit. In these days of bad trade and hard times we cannot, if we are wise, afford to neglect all the means which may justly and legitimately stimulate the trade and industry of Great Britain.”

The fact that it would have been utterly impossible—a self-evident absurdity—to use those words, or any resembling them, of aught but strong

drink is substantial evidence against alcohol. Of what trade but the liquor trade can it be said that a marked reduction in its volume would tend to the prosperity of every other business and industry? The rule is that trade creates industry ; but this trade retards and diminishes it.

1st. It begins by wanton waste of the fruits of *Waste of food.* the earth. Strong drink is not a natural product in any fair or legitimate construction of the words. Itself an agent of destruction, it comes into existence through destruction. To obtain it, either fruit or grain is sacrificed. As has been well pointed out, alcoholic beverages differ widely in this respect from some other substances used as intoxicants. Opium, for example, the agent of demoralisation forced upon the people of China, grows naturally in the poppy ; and hasheesh, a more obscure intoxicating poison, is found without the elaboration of costly processes of transmutation in the hemp-plant. But alcohol, as such, is in neither grape nor cereal. Only through the medium of shattered sugar can ardent spirits be evolved as a temptation and curse to mankind.

But intoxicating liquors are thus produced in enormous quantities, and in their manufacture vintage after vintage perishes, and the golden crops of harvest after harvest are cast into the cauldron that by death brews death. The loss at this early stage is portentous, but it would be a happy deliverance for the nation if the whole of the grain thus devoted resulted in absolutely no return. Instead

of merely opening, the chapter of woes would close with the single disaster—a blessing in disguise—of a large proportion of the fruitage of the fields suffering annihilation.

That it is at the outset a very grave economical question which we are considering can be shown by a concise statement of facts and figures. During the twelve years, 1874-85, something like a yearly average of £60,000,000 worth of grain was imported into this country, and during the same period an average of about 75,000,000 bushels (rather more than less), worth from £40,000,000 to £50,000,000, was worse than wasted in the manufacture of intoxicating liquors. The late Mr. Wm. Hoyle expended great patience and care on annual estimates of the impoverishment of the nation caused by the liquor traffic in this direct manner. Dr. Dawson Burns, who, according to the *Times*, has “taken up the parable,” so continuously urged in the columns of that paper once a-year by Mr. Hoyle, applied his lamented predecessor’s estimates for 1883 to the figures of the National Drink Bill for 1885—from which late returns differ in this connection immaterially—and says that, speaking broadly, “the food wasted by the manufacture of the intoxicating liquors consumed in 1885 was equal to 74,500,000 bushels of grain; and, estimating that each bushel yields 40 lbs. of flour, convertible into fifteen 4 lb. loaves, we find there might have been made from these bushels of grain 1,117,500,000 loaves of

*Quotation from
Dr. Burns.*

nutritious bread. Some one has calculated that such a number of loaves would cover a road 10 yards wide and 1190 miles long, or about two-thirds of the distance from Liverpool to New York."

Dr. Burns pertinently adds : "If the destruction of such an amount of food can be justified, it is hard to see what justification may not be advanced for any amount of waste ; and wholesale destruction of food would take its place amongst the most virtuous of deeds."

A simple arithmetical calculation further reveals that, adopting the figures of the 1881 census as the divisor, some thirty loaves of 4 lbs. weight could be apportioned yearly to every man, woman, and child in the United Kingdom out of the potential bread fund squandered in the making of strong drink. Surely the brewer and the distiller have brought wilful waste to the perfection of a fine art !

Not a few of the totals given by Mr. Hoyle in his "National Drink Bill," and elsewhere, are stupendous. The eye of the reader cannot readily overtake their significance. And the substantial accuracy of these estimates is not impugned. Their author is admitted on every hand to have been a most conscientious and able statistician who, by unwearying labours, had won thorough mastery of his subject. Mr. Hoyle has pointed out that "to manufacture the £134,000,000 worth of intoxicating liquors" consumed during each of twelve

*Calculations
of Mr. Hoyle.*

recent years, "80,000,000 bushels of grain, or its equivalent in produce, has been destroyed each year; and, taking the bushel of barley at 53 lbs., it gives us 4,240,000,000 lbs. of food destroyed year by year, or a total for the twelve years of 960,000,000 bushels or 50,880,000,000 lbs. And he has shown that to grow this huge quantity would require twelve yearly harvests from a corn-field of more than two million acres, the size of the three home counties of Middlesex, Kent, and Surrey, with Berkshire thrown in.

*Waste of labour
in its first
phase;*

2nd. Waste is manifest again in the labour employed only to mischievous ends in the manufacture and sale of alcoholic beverages. The major share of this is properly included in the sum drawn annually from the nation's pocket to pay for its terrible luxury. But on any fair and reasonable calculation there must remain a balance of loss unaccounted for after every just deduction. The capital sunk in "the trade" produces nothing, and the dispensing of intoxicating liquors occupies time and energy which are thus literally non-productive, and which strong drink in this way subtracts from the labour capital of the nation. It is sometimes claimed on behalf of the drink that at anyrate it gives employment to a multitude of people, the highest (and grotesquely extravagant) estimate being a million and a-half. Supposing that it were so, we should still be entitled to answer that this is the equivalent for the money spent by the nation on intoxicating liquors, and

that to prove the money misspent is to prove the labour squandered. As a matter of fact, it is worse than wasted, for instead of adding to the people's comfort or happiness, it produces, through the length and breadth of the land, crime, misery, disease, and death. If every man and woman in the kingdom became a total abstainer simultaneously, and the liquor traffic withered in a night, it would be to the nation as a whole a speedy and an immeasurable gain. Every working-man may see that when a household forswears drink its members begin to prosper and to rise in the social scale, on however humble a range they have hitherto stood. And what is advantageous for the unit is so for the family, and is so also for the nation, which is nothing but a vast collection of families and units. There is no foothold whatever for the advocate of alcohol in the argument that the manufacture of strong drink employs many toilers. Industry should create industry: this occupation defrauds all others.

It may be estimated that the indirect loss to the nation, in excess of the figures in the known drink budget, occasioned by valueless labour, is at least equal to a sum of fifteen to twenty millions annually.

3rd. And this is not the whole. Drink produces its baleful effects on the labour employed in honest and productive occupations. There is no department of industry which escapes the retarding, thwarting influence of alcoholic habits. As far

*and in its
second.*

back as 1834, when the expenditure per head on intoxicating liquors was less than it was in 1887, a Parliamentary Committee reported, after careful inquiry, that the nation's loss of productive labour through intemperance amounted to £50,000,000 yearly, and was equal to a diminution of one day in six. The loss is produced in numberless ways. Absence of workmen as the result of drinking-bouts—through the keeping of “Saint Monday”—is one of the leaks in the industrial ship. Many factory proprietors are mulcted in unnecessary costs to the tune of thousands of pounds annually through the drink-caused irregular attendance of their employés. Fires are kept going at absolute waste, because to have the trouble of rekindling them would still further hinder operations. Capital stands idle. And when the men do return their work deteriorates in quality and diminishes in quantity as the consequence of the physiological action of the drug they have imbibed. Mr. B. Whitworth, as a manufacturer, bears witness :

*Evidence of
Mr. B. Whitworth.*

“ In one concern with which I am connected Sunday drinking causes a loss of £35,000 per annum. It does it in this way. We find from experience that the men will not come to work on the Monday morning in sufficient numbers to make it worth our while to put the machinery in motion. Even if they do they are unfit to work, and we find it such ineffective labour that we do not start till the Tuesday. The result is, as I say, a loss of £35,000 upon that one concern alone.”

There is loss of skill through alcoholism. There are countless blunders which occasion waste of material and time. There is a liability to accident, which involves continual expense and derangement of routine. And all these items in the gross increase, and increase largely, the cost of production. Is it any marvel that by thus gratuitously handicapping industry British trade is more and more at the mercy of stringent foreign competition? It must be borne in mind that the British love for short hours and high wages makes the fight for commercial supremacy sufficiently hard already. French and German workmen are not so particular about the duration of the day's labour, and can live and thrive on a stipend which would disgust their English *confrères*. Then, again, in many countries natural resources exist which are absent here, raw materials which English manufacturers have to buy at advanced figures. And, once more, the extension of machinery tends to bring competing peoples closer to our own level. If, in addition, the incubus of the liquor traffic, and of the intemperance which is its outcome, remains fixed upon the shoulders of this nation, there can be little hope of a real and lasting deliverance from the trade depression which is such an alarming current phenomenon.

The English labour market suffers from the rivalry of foreign artisans brought to this country because their sobriety can be better depended upon. Take the case of the Forth Bridge.

*Experience at
the Forth
Bridge.*

This gigantic undertaking, of which one of its engineers (Mr. Benjamin Baker, C.E.) has said : "As a grenadier guardsman is to a new-born infant, so is the Forth Bridge to the largest railway bridge yet built in this country," affords employment to some 4000 to 6000 workmen, and when finished will have taken at least six years in building. Presiding at a social gathering of the Tay Bridge workmen, in the Thistle Hall at Dundee, on 26th March, 1887, Mr. William Arrol, contractor, said : "At the Forth Bridge works we were lately sinking large caissons seventy feet in diameter. . . . The caisson weighed 6000 tons, and it had to be suspended by air while the men were working underneath it. To nearly everybody this would be a serious and dangerous-looking operation. I looked at it in this light. I went to Antwerp to see them sinking caissons of a smaller size by the same process, and when I came back to begin the sinking of the caissons of the Forth Bridge I found my greatest difficulty was intemperance. The men could not be kept at work on account of their drinking habits. In working underground the labour was easy. The men worked short shifts, and when they came up they felt a little elevated owing to working under an air-pressure. Having six or eight hours to themselves they went to the public-house, and, instead of being able to go back to work, they were quite incapacitated by drink. Another danger was, that in passing through the air-lock

they ran great risk in heedlessly passing through too hastily. That was the way the Belgians and Italians had a preference over our countrymen in working at such a job. It was not that the foreigners were better men than Scotchmen or Englishmen, but because they were more steady. The Italians, instead of going away and passing their time in a public-house, went to bed and rested, and they were all ready for work when the time to begin came round."

Even sailors of British nationality are being forced to yield the *pas* to foreigners, through Jack Tar's traditional vice. Many a British-born seaman lounges disconsolately about the docks on Thames side, in the by-ways of Wapping, and on the quays of seaport towns without employment, for no other reason than this. If merchants and master-mariners could rely upon his sobriety they would engage him. But as it is he is elbowed out by the more abstemious alien. *Drink and sailors.*

Mr. Froude in his "Oceana" (p. 203), quotes a striking remark of an American captain sailing between Sydney and San Francisco. "I make it a rule," said this captain, "when I engage my men for a voyage, to take no English, no Scotch, no Irish, no Americans. There is no getting along with them. They go ashore in harbour, get drunk, get into prison, give me nothing but trouble. It is the same with them all, my people and yours equally." "Then whom do you take?"

asked Mr. Froude, in astonishment. "I take Danes," the captain answered; "I take Norwegians, Germans, Swedes, all of these I can trust. They are sober, make no row, are never in the hands of the police. They save their wages, are always quiet and respectable, and I know that I can depend on them. The firemen, ship's servants, &c., are Chinamen; I can trust them too."

It is of ill omen indeed for the industrial and trading fame of Britain, that these things should be so. But the facts are beyond dispute.

*Paralysis of
professional
service.*

4th. There is loss to the nation through the destruction by strong drink of mental power and professional skill. It is no insignificant item on the wrong side of the national ledger, although in this place it will have to be briefly dismissed. We are not now referring specially to the insanity which drink produces. Vast as is that mischief, it is far from being a sectionally *inclusive* evil. Many a career which might have been and ought to have been remunerative to the community for advantages of training and education, has collapsed in shame through indulgence in intoxicating liquors. The nation is a loser. There is no return for outlay, and very often the subject of the disgraceful lapse becomes a helpless burden, in addition, to society. In his papers on "Horrible London," contributed to the *Daily News* in 1883, Mr. George R. Sims has shown how large a number of men who were once in

first-class positions fall through drink, and drift as wrecks on the sea of humanity. He mentions as passing through only one London common lodging-house in a short space of time;—a paymaster in the Royal Navy; two old Cambridge men, chums, one of whom had kept a pack of hounds and run through a large fortune; a doctor, son of a physician; a clergyman who had taken honours; a member of the Stock Exchange; a brother of a clergyman and renowned scholar,—wife also drinking herself to death in the neighbourhood; the brother of a London vicar. These people, says Mr. Sims, were all “forced back on a rookery through drink,—sober, they need never have sunk so low as that.”

Incriminating evidence of the most painful kind, convicts strong drink of ruining men in every rank of life, and of every degree of culture. It destroys the usefulness of clergymen, scholars, doctors, lawyers, public officials, military and naval officers, schoolmasters, accountants,—of any, high or low, who through moral or constitutional weakness are drawn into the awful vortex. And of this gross amount of trained ability and mental acumen the nation is robbed. *A general enemy.*

5th. But the waste of capital disclosed in the figures of the nation's annual drink bill awaits attention. The people of the United Kingdom spent on liquors in 1887 the colossal sum of £124,953,680, there being a net increase of £2,047,895 on the total of 1886. Taking the *Figures of the nation's drink bill.*

total cost of these alcoholic beverages and apportioning it per head to the population, we ascertain that the cost per head was £3, 7s. 6½d. Supposing the average British family to consist of five persons, this gives an expenditure of £16, 17s. 8½d. to each family.

It is but right to say that these figures all exhibit a very considerable reduction on those ruling ten years back. And this with, of course, a large increase in population to take into account. If we can only be sure that a greater regard for thrift, and a more general and practical acceptance of temperance principles were the main causes of the improvement the outlook would be decidedly hopeful. But there are fears in some quarters, that the sinking of the drink bill has its explanation in depression of trade, and that should the commercial barometer rise, the consumption of intoxicating liquors would rise with it. Only the event can clear up this obscurity.

The year 1876 happens to have the evil pre-eminence of possessing the largest budget—scoring “a record,” in sporting phrase. We subjoin the figures of the twenty years 1867-1886:

1867,	£110,122,266.	1874,	£141,342,997.
1868,	113,464,874.	1875,	142,876,669.
1869,	112,885,603.	1876,	147,288,759.
1870,	118,736,379.	1877,	142,007,231.
1871,	125,586,902.	1878,	142,188,900.
1872,	131,601,490.	1879,	128,143,865.
1873,	140,014,712.	1880,	122,279,275.

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1881, £127,074,460.	1884, £126,349,256.
1882, 126,251,359.	1885, 123,268,760.
1883, 125,477,275.	1886, 122,905,785.

The 1886 total is thus seen to be lower than that of any year since 1880, and with the exception of 1880, lower than any year since 1870. But in 1887, the "Jubilee year" (which fact may be partly accountable), the total rises again to the figures just quoted. The nation has squandered an annual sum of £128,500,000 (average) during the last ten years on a miserable agent of destruction. The total closely approximates to the national expenditure on bread, cheese, and butter, is some three times the amount spent on tea, coffee, cocoa, and sugar, not far from three times the amount expended in woollen and worsted goods of all descriptions, and six times the sum expended upon linen and cotton goods. It is nearly twice the annual gross receipts (both from passenger and goods traffic) of all the railway lines in the United Kingdom, and upwards of eighteen times the annual cost of elementary education in this country. Once more, it is nearly twice the amount annually paid for house rent in the United Kingdom.

Dr. Burns has recently quoted from an old *Times* leader (7th December, 1853) these strong but, just words : " It is a peculiarity of spirit-drinking that the money spent upon it is, at the best, thrown away, and in general far worse than thrown away. It neither supplies the natural wants of man, nor offers an adequate substitute for them. No way so

The Times on spirit-drinking.

rapid to increase the wealth of nations and the morality of society could be devised as the utter annihilation of the manufacture of ardent spirits, constituting as they do an infinite waste and an unmixed evil." The latter sentence deserves to be printed in letters of gold, and hung up in the study of every politician, social reformer, and preacher of righteousness in the land.

*A secret of
"bad trade."*

These statements are true of all alcoholic beverages, and not a few of the chiefs of British industry are learning in the painful school of experience that the money paid by the nation for strong drink in all its forms and disguises is CAPITAL WASTED. At the annual meeting, 1887, of the Belfast Linen Merchants' Association, the Chairman observed that it was not in foreign competition, nor over-production, nor hostile tariffs that the *cruix* of the present trade depression resided. There was one trade that the late Royal Commission had apparently overlooked ; that was the liquor trade. If the Commissioners had looked there they would have found "that we were spending over £120,000,000 in that trade, enriching those engaged in it, and drawing the money away from the Labour Fund that ought to supply the people with the money to buy the goods that they have produced."

*Irish poverty
keeping pace
with Irish
drinking.*

An increase of national poverty coincident with an increase of national drink expenditure, and in the temperance reformer's opinion in large measure explained thereby, is a phenomenon open to in-

spection in the country whose woes and wants engross just now the lion's share of attention. In Ireland £11,000,000 per annum is paid for drink—a sum about equal to the gross land rental which we are assured by Irish leaders is an insupportable burden. The cost per head for spirits and beer in 1881-2 was £2, 1s. 3d. ; in 1884-5 it had increased to £2, 4s. 4d. The number of public-houses increased from 32·0 to each 10,000 of the population in 1881-2 to 34·3 in 1884-5. The arrests for drunkenness in 1881-2 in the 10,000 of population numbered 153, and were 188 in 1884-5. These are figures contributed to the *Scotsman* newspaper (August, 1887) by Mr. William Livesey. The compiler further states “that comparing 1881 with 1884, the increase in money wasted upon intoxicating liquors in Ireland amounts to three-quarters of a million, and that the reduction in rents under the Land Act of 1881 has been more than equalled by the increased expenditure upon spirits and beer during the same period.”

And the Irish people are poorer and more miserable accordingly. If the money had been first saved and then sunk in the lowest depths of the ocean that washes Erin's coasts, it would have been better for the people, for then at least the first waste would have been the last ; and no after and indirect costs of crime, insanity, and pauperism produced by drink would have accumulated to swell the eleven millions to twenty.

The cardinal fact is this : The drink expendi-

ture of the nation is worse than wasted. It involves, as we shall shortly see, the imposition of other intolerable fiscal burdens ; but it does not return a legitimate equivalent.

A futile drinking argument.

The idle objection is sometimes raised that it matters little how the money is spent so that only it is "in circulation." There are superficial thinkers who regard money passed from hand to hand, or from a workman's pocket into a publican's till, as furthering the financial well-being of the nation, apart altogether from awkward questions about the *quid pro quo*. To them there is magic in the mere change of the locality of the coin. It is a blunder. The late Professor Fawcett shows very clearly, in his "Manual of Political Economy," that such reasoning is fallacious. Labour, which may be regarded as the basis of value, requires to be remunerated from a wage fund. Whatever the nation saves betters the wage fund ; whatever the nation pays for pernicious luxuries is a potential diminution in the wage fund. The controversy inevitably hinges on the question of the nature of return for money spent. In his lecture on "Our National Resources and How they are Wasted," Mr. W. Hoyle instances a supposed test case of a hundred men, each earning a weekly sum of £2. The men spend 12s. per week each on an average on drink, and at the end of the year have consequently disbursed thus £3120—"circulating" the money in taverns and gin-shops ; and proceeds :

“Suppose, however, that instead of spending the 12s. weekly in drink, they put the money into a building club and invest it in building houses, the money would build twenty houses worth £156 each, and at the end of the year the £3120 would be circulating in the country just as was the case when spent in drink. In the one case there are £3120 circulating, plus nothing ; in the other case there are £3120 circulating, plus twenty houses added to the wealth of the nation.”

*Demolished by
Mr. W. Hoyle.*

Following the latter expenditure in its results we find, moreover, “twenty or more men set to work to build the houses. These, of course, would earn weekly wages, and at the end of the week would be off to the shops to purchase goods for their families.” Thus £3120 are circulated, “plus twenty houses added to the nation’s stock of wealth, plus employment found for twenty or more workmen, plus increased trade for the shopkeepers and manufacturers, plus a diminished taxation owing to the absence of the drink evil, plus happiness to the families concerned instead of misery and maybe ruin.”

Consider the matter from a slightly different standpoint. Suppose a family should be so demented as to purchase week in week out such a quantity of grain as is equivalent to the cost of the supply of strong drink they are in the habit of consuming, and that, instead of making use of this grain, they week by week destroy it. They are palpably poorer by the cost. They obtain no

*Destruction
must mean
waste.*

adequate return (although, presumably, their money is "circulating"). Every week's expenditure will heighten the sum of their loss. Now, intoxicating liquors actually work mischief, and the family is poorer indirectly as well as directly which has recourse to them. As the nation is an assemblage of families, how can the nation as a whole gain—or escape its waste and proportionate loss—by those habits which impoverish its individual constituent groups? The thing is impossible.

Another objection occasionally urged against the overwhelming economic arguments for national total abstinence is on the score of revenue.

A second quibble.

From the latest published returns, in a Parliamentary paper, it appears that for the year ending 31st March, 1888, the Chancellor of the Exchequer received as taxes and imposts on alcoholic beverages, and on the liquor traffic, the sum of £29,744,188. We have to remark that this sum represents a rise of £389,995 as compared with the revenue raised from strong drink in the previous year. Again, perhaps, we may see one of the least satisfactory results of the Jubilee festivities.

Equally worthless.

The defenders of the liquor traffic would have us believe that the State suffers injury as this revenue diminishes. But there are insuperable obstacles in the way of such credulity. These £29,744,188 would not be required but for the damage done by alcohol. Strong drink fills prisons, workhouses, and lunatic asylums, and is thus the cause of a

prodigious expenditure which in its absence or disuse would infallibly shrink to puny proportions. Banish intoxicating liquors, and a prospering community will replenish the national exchequer with funds to meet every legitimate need which can conceivably arise. Statesmen and public men who are least likely to be deluded by sentimental phantasies see this. In a speech delivered at Liverpool, 16th January, 1880, Lord Derby asked a pertinent question, and supplied the answer. He said: "Suppose only one quarter of the sum spent in liquor or tobacco to be saved, that implies a reduction of ten millions in the revenue, and do you suppose any Chancellor of the Exchequer would go to work to put on those ten millions again by taxation? Not he; he would learn to do without them." Yes, if the revenue from intoxicants were dried up at its source, the nation would be happier, wealthier, and less heavily taxed.

6th. To the direct cost of strong drink to the *Indirect cost.* nation there must be added an enormous increment not exhibited in the initial bill. The expenditure does not stop at the purchase of an instrument of disease, degradation, and death. Would that it did! The account is swollen through the results of the purchase, and in the deliberate judgment of the most competent authorities, swollen to nearly twice its original dimensions. At this point a new chapter is indicated.

CHAPTER III.—THE RETURN FOR THE
OUTLAY.

*“ Miner’s dog-
gerel.”*

THE great temperance orator, J. B. Gough, quoted in one of his marvellous “blends” of platform humour and pathos a stave of a miner’s drinking song, thus—

“ When a man buys beef, he buys bones ;
When a man buys plums, he buys stones ;
When a man buys eggs, he buys shells ;
When a man buys drink, he buys nothing else.”

If the assertion in the last line were true it would be far easier than it is to condone the nation’s extravagance in spending yearly £128,500,000 on intoxicating liquors. However it may fare with any particular unit, the nation buys ill-health, insanity, destitution, and crime with the gold that fills the coffers of the liquor trade. The economic case for total abstinence is rendered impregnable here by simply a plethora of the strongest and most conclusive evidence that either friend or foe could require.

*Buying dis-
case,*

As we have already seen that alcohol sows the seeds of a loathly harvest of a great number of most deadly maladies, renders its victims more susceptible to epidemic diseases and malarial poison, and is terribly potent to shorten life wherever introduced, it is unnecessary to go anew into detail with respect to the grounds of this charge. But we may observe that a very large retrench-

ment in charges sustained by the nation—although to so great an extent voluntarily—on behalf of hospitals and infirmaries would be the sure result of a general acceptance of temperance principles. The number of accidents would dwindle to a minimum if the predisposing cause of intemperance could be removed. And accidents which are the result of alcoholism inevitably entail gratuitous loss on employers, and through them on the State. Many a shocking disaster on a railway, or in colliery or factory, has been clearly traced to strong drink. Many a noble vessel, freighted with lives and merchandise, has gone down at sea through the recklessness of drunken officers or crew. *and accident,*

INSANITY, alarming in its increasing extent, is *and madness.* an item in the return which alcohol makes to the nation for the nation's expenditure on strong drink. The maintenance of lunatics who are bereft of their senses through alcoholic indulgence, either personal or ancestral, augments the country's fiscal burden. The *modus operandi* of the drug in producing mental derangement has received attention in a previous section. We have now to examine the results as they appear in official statistics and professional reports, premising that the whole of the dark truth cannot be disclosed to the scrutiny of any human inquirer. There are numbers of men and women mentally disabled by the influence of alcohol whose cases do not appear under that head in any schedule. Their affliction may be temporary or intermittent. Or to prevent

scandal, friends may enter into a conspiracy of silence. Or the cause may be nominally found in some shock administered to a brain weakened by drink, but not stated to be so weakened.

But, based upon the most cautious and indisputable figures, the case against alcohol is black.

*Evidence of
Lord Shaftes-
bury.*

Lord Shaftesbury was for some fifty years one of H.M. Commissioners in Lunacy, and for a large proportion of that time the chairman of the Commission. In evidence before a Select Committee in 1859, he stated his opinion that half of the lunatics found in English asylums came there through drink. With a more protracted experience he stated to another Parliamentary Commission of Inquiry, in 1877, that he believed intemperance to be the cause of "fully two-thirds of the insanity that prevails either in the drunkards themselves or their children."

*Of Dr. E.
Shepherd.*

Dr. E. Shepherd, medical superintendent of Colney Hatch Asylum, said in his report for the same year (1877) that analysis of admissions into this asylum during the year showed a percentage of more than 28 due to intemperance, and continued: "I am persuaded, from the character of the individuals and the form of their malady in other cases where the causation is not assigned or cannot be accurately traced, that an addition of 12 per cent. may directly or indirectly be attached to the same origin. Thus we have an approximate record of 40 per cent. of the madness of Middlesex as due to an avoidable cause."

Dr. W. A. F. Browne once examined into *Of Dr. W. A. F. Browne.* 57,520 cases of insanity collected from different countries, and found that of this total 10,717 cases, or nearly one-fifth of the whole, were the result of alcoholism.

In France, the results of some painstaking re- *Of M. Planes.* searches by M. Planes have lately been published. From 1872 to 1875 there came under this scientist's observation at the *infirmierie spéciale* in Paris, 32,000 cases of insanity: 18,000, in round figures, were males, and of these 5063 owed their mental trouble distinctly to alcoholic habits. Of the women, 818 cases were to be attributed to the same cause. And ominously significant, too, is the steady increase in the numbers of those who become insane by drink as revealed by M. Planes' figures. In the institution just mentioned the advance has been from 302 men and 60 women in 1877 to 424 men and 76 women in 1885 (*Temperance Record*, 27th October, 1887).

To return to Great Britain. Having thus ascertained that the intimate connection between alcohol and insanity is a world-wide phenomenon, Wm. Hoyle, writing to the *Times*, 5th September, 1883, said: "The returns of lunacy show that its increase has been even greater than that of crime. In 1852, the numbers of lunatics in England and Wales were 21,158; in 1881, the numbers were 73,113." The figures on the 1st *The 1888 Lunacy Report.* January, 1886, by the forty-second report of the Commissioners in Lunacy, stood at 82,643,

being an increase of 1752 on the numbers of the forty-first annual report. Alcoholic influence in stating and confirming loss of reason is realised, for amongst assigned causes of insanity "Intemperance in drink" occupies a prominent place, 13 to 14 per cent. being assigned directly to that cause. Already in a large proportion of the asylums no beer is given with meals; and the amount actually spent on intoxicants only averages $\frac{3}{5}$ d. per week on each patient.

*Testimony of
Mr. W. J.
Corbet.*

W. J. Corbet, Esq., M.P., writing in the *Fortnightly Review*, April, 1884, with the authority of a special student of the sad statistics of insanity, shows that the gross totals of the insane in the United Kingdom have advanced stage by stage from 1862 to 1882 thus: In 1862, the numbers were 55,525; in 1872, they were 77,013; and in 1882, they reached 98,851. The ratio per thousand was 1.81 in 1862; and 2.41 in 1872; and 2.8 in 1882. The reviewer says that alcohol is the leading cause in this progression, and holds "that there is abundant evidence to prove that to dissipation, drunkenness, and moral depravity, either directly or consequentially by transmission to the next generation, is to be charged an immense proportion of the annual increase of lunacy."

*Of Dr. Yellow-
lees.*

Said Dr. Yellowlees of the Glamorgan County Asylum, nearly fifteen years ago: "The evil thus wrought by intemperance is simply incalculable; at once so secret that it cannot be known, and so great that it cannot be estimated. . . . It is surely

within the truth to assert that half the existing cases of insanity are due directly or indirectly to this social curse."

The aggregate cost to the nation in hard cash is as difficult to estimate as are the dimensions of the mischief and the misery. But some light can be obtained. The forty-second report of the Lunacy Commissioners gives, as we have already seen (p. 207), a gross total of persons of unsound mind in England and Wales on 1st January, 1888, of 82,643; and the report shows, moreover, that the average cost of maintenance of a patient in a county or borough asylum was 9s. 2½d. per week during 1887, or £23, 19s. 4½d. per annum. Multiplying these latter figures by the total number of paupers—the criminal lunatics are too few to necessitate elimination—we have a total expenditure of upwards of a million and three-quarters sterling.

Costs of maintenance.

The labour of these unfortunate beings is lost, they are stricken drones in the industrial hive, and in addition the burden of their support falls on the shoulders of the workers. That burden is probably twice as heavy as it would be if strong drink were unknown.

A double loss.

PAUPERISM again, in unwieldy mass, and with many allied and incidental drawbacks to the national prosperity, is part of the return which intoxicating liquor makes for the nation's drink expenditure. Under the weight of this incubus the ratepayers groan in every county.

Buying pauperism.

From the seventeenth annual report of the Local Government Board for 1887-88, we learn that the total number of paupers in receipt of relief in England and Wales, January 1st, 1888, was 831,353, an increase of 9138 on the figures of 1887. It appears further that, on the basis of these figures and of those of the estimated population, the number of paupers amounted approximately to one in every thirty-four persons, being about 3·0 per cent. of the population.

And this terrible destitution has its main origin in alcoholic indulgence, recent or remote, personal or relative. There are exceptions, but this is the rule. Abundance of dismal proof is forthcoming to substantiate the statement. In slum and in workhouse there is growing up year by year a population inheriting the drink crave. Towards the slums there continually gravitate drink-wrecked men and women, once full of hope and ambition, now on their cheerless way to recruit the ranks of the lapsed masses. Prostitutes become such through the influence of drink. Thieves are made through the pressure of temptations into which they would never have stumbled but for alcoholic habits. Intemperance robs thousands of able-bodied men of employment, and ultimately brings them into line with professional vagrants.

Evidence of the late S. Morley;

The late Mr. Samuel Morley presided, in one of the last years of his noble life, over a meeting, in Exeter Hall, of representative relieving officers

(Metropolitan) convened especially to consider the relations between intemperance and pauperism; and stated that as a member of the Royal Commission to inquire into the Housing of the Poor, he did not hesitate to say that drink lay at the bottom of very much of the prevailing misery. "Many of these people could at once improve their dwellings if they kept out of the public-house, and abstained from intoxicating liquors."*

In the conference that followed the Chairman's address, there was unanimity on the point that drinking largely increased pauperism. There was unanimity also as to the absence of teetotallers from the accounts of the unions these officers served. One speaker testified that out of 21,000 applications he had *only known of two proceeding from total abstainers*. Another mentioned that in his district the order of the Sons of the Phoenix—an abstaining society—numbered 16,000 members, nearly all working men of the poorer class, *and that only two had here again applied for relief*.*

The numbers of Metropolitan paupers, both indoor and outdoor, were given in a census of November, 1887, as 97,581. The returns of the Royal Commission on the Housing of the Poor in the statistics of 1878 showed the startling fact—in the words of Archdeacon Farrar—that "there died in London 84,200 people (in that year), and of those 15,000 died either in hospitals or workhouses. The startling result was that one in every three of the poorest

and of relieving officers.

Some pauper statistics (London).

* See Notes.

class in London died either in a hospital or work-house." And for this there can be no doubt whatever that drink was primarily responsible.

*Report of
Convocation.*

A Report of Convocation (Canterbury) some years ago spoke most plainly on this subject, saying: "It can be shown that an enormous proportion of the pauperism which is felt to be such a burden and discouragement by the industrious and sober members of the community, and has such a degrading and demoralising effect upon most recipients of parochial relief, is the direct and common product of intemperance. It appears indeed that at least 75 per cent. of the occupants of our work-houses, and a large proportion of those receiving out-door pay, have become pensioners on the public directly or indirectly through drunkenness, and the improvidence and absence of self-respect which this pestilent vice is known to engender and perpetuate."

The inevitable companionship of drink and want is seen in the fact that in all the worst rookeries of large towns taverns and gin-shops abound; and conversely that where the public-house is absent over any large area destitution shrinks into narrow limits, and almost disappears. A glance into any slum will suffice to establish the truth of the first part of this proposition. And of the truth of the latter statement ample evidence is forthcoming in the reports of Blue-books, and elsewhere. The instance of Bessbrook has been frequently referred to, but its wholesome lesson has not yet been sufficiently taken to heart, and we make no excuse for

*"Fortunate
Bessbrook."*

telling anew a familiar story. We condense statements made before the Lords' Committee on intemperance of 1880. When, in 1847, Bessbrook, County Armagh, got into possession of Mr. John Grubb Richardson, it was a small hamlet. Now it is a very fine town. Not a drop of drink was sold in Bessbrook after it came into Mr. Richardson's hands. "There has never been a police-barrack, nor a policeman, nor a pawn-office in Bessbrook." A vote by ballot was taken of the householders whether they would prefer a public-house in their midst or not. By a majority of nine to one they responded "No."

Said Mr. T. W. Russell (now M.P.), before the Lords' Committee :

"There is a district, in County Tyrone, covering sixty-one and a-half square miles ; it adjoins the town of Dungannon. . . . I lived in the town of Dungannon for five years, and there were public-houses on that territory when I first went there ; but Mr. John Kinley Tener, who became the agent of the properties in the district, refused, I believe, to renew the leases, and, as a matter of fact, the public-houses vanished. There were police-barracks in the centre ; they were closed in twelve months afterwards, and the policemen removed. The poor-rates came down from 1s. 4d. and 1s. 6d. in the pound in the different townlands to 5d., 6d., and 8d. . . . The population is 10,000."

*Evidence of
Mr. T. W.
Russell ;*

Sir Geo. Trevelyan, speaking at Carnarvon, 30th October, 1887, is reported to have said :

and of Sir
Geo. Trevelyan.

“On my estate there has been no public-house for thirty years. The consequence is that there has grown up a race of people who are as different as possible from those who live where drink is sold. *There is no pauperism*, and there is absolutely no discontent with the system.”

It would be easy to cite further testimony. But it is unneeded; the case is clear. The burden of pauperism, which agriculture especially in these trying times, finds to be a crushing load, is almost *in toto* the consequence of the national expenditure on intoxicating liquors.

Cost of British
pauperism.

The cost of the relief of the poor during the year ending 25th March, 1887, amounted to £8,176,768, which was a reduction on the figures of the previous year of £119,462. The expenditure represented an average charge of 5s. 10½d. per head on the estimated population, and an average rate of 1s. 1·2d. in the pound on the rateable value of the property liable throughout England and Wales to contribute to the poor-rate.

But the economical indictment presented against strong drink is not even yet at an end.

Buying crime.

CRIME is a miserable portion of the nation's bargain when £128,500,000 are paid yearly for liquid madness. Again we have to face the existence of a tremendous though secondary fiscal forfeit.

By its well exposed physiological action alcohol degrades every moral and mental faculty, excites into ominous activity each base and unworthy passion, dethrones reason and clouds the mirror of

conscience. Is it any marvel that the calendars of Assize Courts bristle with offences committed under the influence of strong drink, that the prisons gather into their gloomy precincts the dupes of drink by hundreds and thousands, that the vilest felons have often accused drink of beginning and of consummating their ruin? In this department there is again manifest a clear and close connection between cause and effect. Judges and magistrates are the experts who first enter our witness-box. They bear practically unanimous testimony.

Mr. Justice Hawkins has repeatedly condemned alcohol as producing crime. At Bradford Assizes, in 1878, he said: "I do not hesitate to affirm that the great majority of the crimes that come before me can be traced, either directly or indirectly, to the influence of drink." At the Durham Assizes, July, 1883, he said: "Every day I live I come more firmly to the conclusion that the root of all crime is drink. I believe that nine-tenths of the crime of this country, and certainly of the county of Durham, is engendered within public-houses." And yet again, charging the Grand Jury at the Cumberland Assizes, January, 1887, the same learned judge remarked that if the cases appearing in all the calendars throughout England were taken it would be found that 75 per cent. of the crime was traceable, directly or indirectly, to the inordinate love of liquor.

*Testimony of
Mr. Justice
Hawkins;*

Mr. Justice Denman stated at the Exeter

*Mr. Justice
Denman;*

Assizes, 1878 : " On one occasion, in a northern county, I sat to try a calendar of sixty-three prisoners, out of whom thirty-six were charged with offences of violence from murder downwards, there being no less than six murderers among those thirty-six. In every single case, not indirectly but directly, these offences were attributable to excessive drinking." And at Surrey Assizes, August, 1882, this judge affirmed that " the great bulk—I may almost say the whole—of the offences of violence which take place in the counties of this land are directly ascribable to the habit of drinking."

Baron Huddleston;

Baron Huddleston stated at Swansea Assizes, August, 1882 : " Of the forty-four cases down on the calendar I find almost all traceable, directly or indirectly, to the detestable habit of drinking ;" and gave it as his opinion, founded on experience, again at Nottingham Assizes, November, 1887, that " drunkenness is the cause of almost all the crime in England now."

*Mr. Justice
Grantham;*

Mr. Justice Grantham, at Manchester Assizes, November, 1887, is reported to have said that drink was the cause of many of the crimes the jury had to deal with, and that the owners of public-houses ought to feel the responsibility which rested upon them.

*Mr. T. S.
Raffles of
Liverpool.*

Mr. T. S. Raffles, stipendiary magistrate of Liverpool, said in 1878 : " The moving cause of the crimes of violence and disorder in our midst is drunkenness. We may set down three-fourths

—I think nine-tenths—of them as arising from drunkenness.”

Baron Dowse said at Dublin, November, 1881 : *Baron Dowse ;*
“I find that drink is at the bottom of almost every crime committed in Dublin ;” and further observed that even cases that “had no apparent connection with drink at all,” if closely investigated, as he himself had frequently investigated them, “would be found to have their origin in drink.”

Sheriff Campbell Smith, of Dundee, stated publicly, June, 1887 : “I have long been convinced that it (drunkenness) is an unmitigated curse to society, and my observations in Dundee have deepened that conviction, for I see it to be either the cause or the concomitant of most of the misery of the poor, and of about nine-tenths of the crime that sends wretches to prison, there being really few crimes in which either the criminal or the victim, or both, is not prepared for it by excess of drinking.” *Sheriff Campbell Smith, of Dundee ;*

And in the Supreme Court of Judicature, in 1881, we find Lord Chief-Justice Coleridge declaring that “judges were weary with calling attention to drink as the principal cause of crime ; but he could not refrain from saying that if they could make England sober they would shut up nine-tenths of the prisons.” *and the Lord Chief-Justice.*

The statements officially and semi-officially presented by chief-constables and by the governors of prisons are of like tenor. Captain Codd, late governor of Clerkenwell, says : “I can assert from *Evidence of Captain Codd.*

experience that a large proportion of the crime of this country is due to intemperance."

*Evidence of
Rev. J. W.
Horsley.*

In this connection the name naturally occurs of the Rev. J. W. Horsley, the last chaplain of the same prison, now closed. Mr. Horsley is widely known as an able and energetic social reformer. In his recently (1887) published book, "Jottings from Jail," there is much to exhibit strong drink as the ever busy manufacturer of crime, and to indicate that national total abstinence would be a policy safeguarding at once the national virtue and the national finances.

"It can be shown as clearly as figures can show anything," says this eminently qualified observer, "that were our drinking customs and facilities to cease, all our metropolitan prisons, with the exception of Pentonville, might be abolished or turned into asylums for decayed licensed victuallers. Three stipendiary magistrates at Bow Street would be sufficient to deal with all the crime of the metropolis."

Mr. Horsley also records the fact that prisons are never so full as when trade is good; that while slack trade increases hardship it lessens crime. He declares the barometer of crime to be a *beerometer*; for the number of prisoners in gaol rises and falls in almost exact proportion to the quantity of beer consumed outside. Hence it is obvious that if drinking were abandoned a striking and happy reduction in the volume of crime would follow.

We have already seen how this latter conclusion has been justified by a practical and positive experience in the cases of certain prohibition estates. These examples do not stand alone. What the famous "Maine Law"—abolishing drinking facilities—has done for numbers of American townships might be related. The results are of parallel character. We incorporate into the evidence a single instance. The Hon. J. B. Grinnell—from whom the town of Grinnell, in Iowa, is named—stated publicly (1885):

*General total
abstinence
means crime
at a minimum.*

"In Grinnell there are no saloons, and no one has been sent to gaol, to the poorhouse, or to the penitentiary for twenty-five years."

*The town of
Grinnell,
Iowa.*

Speaking at the Guildhall, London, 4th March, 1883, at a meeting of twenty-seven abstaining mayors of English and Welsh towns, Mr. J. M. Kernick, of St. Ives, Cornwall, said: "In 1838 we began the struggle against the liquor traffic. We were only two of us in a population of 7000 people, and we made up our minds that, live or die, the drink traffic in that town should come to an end. . . . In less than two years we closed up half the public-houses, and I am proud to tell you that in less than twelve months such was the wave of religious feeling in the town that upwards of 1400 were added to the Christian Church, of various denominations.

*Statement of
the Mayor of
St. Ives, Corn-
wall.*

"I have now been two years the chief magistrate, and I have only had one solitary individual brought before me in connection with drunken-

ness ; and not one individual for these two years has ever been sent to the county prison or the county gaol, or has been committed to take his trial at the sessions or the assizes. . . . We have only one policeman for 7000 people, and I tell you, gentlemen, we have nothing for him to do. We employ him about other things that his time may be filled up."

Surely the case is proved. If anyone wishes to see further what drink does in the way of producing crime, and shame, and sorrow, let him read week by week the unvarnished record of "Fruits of the Liquor Traffic," printed in the *Alliance News*. From year's end to year's end the ghastly tale of violence, blood, and lust runs on. And those terrible columns disclose but a part of the truth. Only on the tablets of God's great recording angel is the awful register complete.

*Criminal
statistics.*

Remembering that in the deliberate opinion of those best qualified to judge, nine-tenths of the crime of the land is caused by alcoholic indulgence, we turn once more to figures. The "Judicial Statistics of England and Wales for 1887," show that during the year ending 29th September, 1887, the indictable crimes known to have been committed, numbered 42,391. The persons apprehended were 19,045, — 15,417 males, and 3628 females. The number of persons summarily proceeded against was 663,887, and of these 529,386 were convicted, 79,696 out

of the total receiving terms of imprisonment ranging from fourteen days to periods of upwards of six months. There were 75,873 cases of assault, 1639 being aggravated assaults on women and children. The cases of drunk and disorderly were 162,772, making with assaults the total of 238,645.

The committals during the five years, 1880-85 averaged per annum,—according to statistics contributed by Mr. M. G. Mulhall to the *Contemporary Review*, December, 1886,—20,763, and were at the ratio of 35 to every 100,000 of the population of the United Kingdom.

During the calendar year 1887, the inquests were 30,030 (on males 19,814, on females 10,216), and in 372 (of which 152 were those of women) the verdict of excessive drinking was returned.

Police establishments in 1887 cost £3,711,933, the prison expenses of all kinds were £340,483, of convict prisons and their officers, £245,007; of reformatories, £66,298; and of industrial schools, £265,305. Detention of criminal lunatics cost £27,741.

It is only by a combination of such totals that we can get an insight into the cost, first of crime as a whole to the nation, and then of drink-caused crime.

A concluding question awaits its answer. What is the gross sum that will emerge from an addition to the direct expenditure of this country *A final calculation.*

on strong drink, of the money representation of the indirect losses produced, as we have seen, by waste of material, of labour, and of capital absorbed in care for those injured by alcohol and control of those whom the same evil drug has lured into vice? Mr. Hoyle's estimate of the average total drink charge levied on the British nation annually during the decade, 1872-81, was £274,000,000. Mr. Stephen Bourne, in a paper read before the Statistical Society of London, in 1880, calculated that the producing power of 1,097,625 persons is wholly absorbed by the liquor traffic; and that 884,000 others are incapacitated through drink, thus:

By adult and infantile deaths,	.	.	.	120,000
„ sickness of producers,	.	.	.	150,000
„ „ administrators,	.	.	.	185,000
„ pauperism,	.	.	.	200,000
„ crime,	.	.	.	88,000
„ professional and other service,	.	.	.	50,000
„ revenue officials,	.	.	.	6,000
„ army, navy, and merchant service,	.	.	.	85,000
				884,000

and went on to show that as 2,000,000 constitute about a fifth of the total number of producers, the drink traffic in one way or another neutralises about one-fifth of the nation's productive power; and that calculated in money the consequent loss was a fifth of the national income—estimated by

*Mr. Hoyle's
estimate of
gross cost of
drinking
habits.
And that of
Mr. Stephen
Bourne.*

Mr. Gladstone, a little before, at £1,000,000,000, —viz., £200,000,000.

Beyond all question here is food for reflection. *Last words.* It is no theoretical statement, no *doctrinaire* assertion, but truth established by every available test, friendly or unfriendly, accepted by cautious statesmen, political economists and statisticians, that as a nation we are paying every year £128,500,000 sterling in the purchase of almost every known species of disease, accident, idiocy, madness, pauperism, vice, crime, and death. We retain and pay above 1,000,000 servants of the drink traffic, and, in return, this huge army toils its hardest to degrade and ruin all ranks of society. Every shilling of the nation's outlay on strong drink is worse than squandered; it is invested to produce national disaster. Drink is deteriorating the race, is disorganising society, and placing its hideous drag on every wheel of progress. All the signs of the times go to show that if England is to hold her own in the neck-and-neck race with other nations for trade supremacy, she must shake herself free from these miserable shackles. In that race the vantage of a promising start if once lost is seldom regained. All history and all experience proves it. There is every economical reason why the nation should adopt *en masse* the principles of total abstinence from all intoxicating liquors.

CHAPTER IV.—A PERSONAL MATTER.

*These facts are
of moment to
all;*

THE considerations to which attention has just been called concern everyone. There is even a sense in which the humblest working man has a more veritable stake in the country than many of his rich neighbours. These latter can often migrate with their capital as caprice or discretion suggest. If in their own land catastrophe, political or financial, should seem to be impending, they can flit, swallow-like, to another. They have only so to regulate their investments as to have the power to realise at short notice. Not so the labourer or artisan. Emigration is a resource now only available for sections of his class, and in time of crisis might cease to be practicable at all. In the most favourable event, the range of the countries of the world open to him would be narrow and restricted. He must go where employment offers.

*and of vital
moment to the
working-
classes.*

And consequently the prosperity of the nation, the maintenance of British commercial supremacy, the prevalence of conditions that indicate a continuous demand for labour, are matters of great moment to every private in the ranks of industry. The handicraftsman is bound, in self-defence, to see to it that as much as in him lies, he furthers the cause of national economy. It is the working-classes who suffer most acutely in periods of trade depression, and who ought, therefore, to take the deepest possible interest in discovering and removing the causes of adversity. Alas ! their money

at present forms the largest proportion of the £128,500,000 annually disbursed for intoxicating liquors, and thus they support and perpetuate a cause of poverty by the side of which all others dwindle into insignificance.

The late Professor Leoni Levi estimated that 67 per cent. of the national expenditure on strong drink comes out of the pockets of the industrial classes. That is to say, the liquor traffic absorbs earnings which might form an ample wage fund to keep all industries busily engaged, and to prevent any able-bodied man who really desired work from uttering the wail of the unemployed. If that 67 per cent. of the squandered millions were diverted into the legitimate channels pointed out by Lord R. Churchill (see p. 184) an impetus could not fail to be given to British trade which would make an end for many a long year of complaints on the score of stagnation. This is a matter of vital concern to every working man and working woman in the land.

The working classes the largest drink consumers.

Gain of many kinds would accrue to the artisan and labouring populations through the wholesale abandonment of drinking habits. An all-round thrift would prevail. There would be scarcely any living from hand to mouth, and the pawnbroker would no longer flourish on usury extracted from the pockets of the victims of alcohol.

Wages would improve. Mr. Handel Cossham, M.P., has prophesied that whenever the time comes that the working men of England cease to drink,

Less drink, higher wages.

wages will advance 20 per cent., "the next day." And Mr. B. Whitworth, himself a great employer of labour, speaking at a conference on Industrial Depression held at the Birkbeck Institution, 28th November, 1884, said that if the liquor traffic were abolished, "within three months the wages of the people of this country would be increased at the very least 25 per cent. So that by bolstering up with their patronage a mischievous monopoly, working men are robbing themselves and their families twice over.

*Public-houses
a social blight.*

Again, the people's homes would be better in character, and situated in better localities. Is the latter part of the assertion disputed? Why, to have the drink shops closed must infallibly change the character of whole districts. As things stand, the abuses that are part and parcel of the drinking system press with cruel hardship on the mechanic and the labourer. A rich man has abundant reason to grumble at taxes for the maintenance of such incidental accompaniments of the liquor trade as prisons, asylums, workhouses, and swollen police and judicial establishments. But as a rule, he does not live in close proximity to taverns and gin-palaces. He is able to shun a tainted neighbourhood. Even brewers prefer to have beer-shops at a sufficient distance from their residences. We quote from *Hand and Heart* :—

*Evidence of a
brewer.*

"At Brighton, a solicitor in applying for a public-house license on behalf of a client, said he was surprised to see Mr. Ashby, a brewer, oppos-

ing a public-house. Mr. Ashby said he did not oppose it as a brewer, but as a private person who had paid a large sum of money, trusting to get a residence free from annoyance. He asked the solicitor, as the father of a family, how he could advocate the erection of such a serious nuisance if he had the slightest regard for the welfare and proper bringing up of his family."

But the poor man must go where convenience bids. He and his family often suffer grievously from this identical "serious nuisance."

Once more, the life of the British people would be fuller of all that can minister to innocent pleasure by a general forsaking of drink. Many a material accessory to ease and satisfaction would be brought within reach. To some extent this is already proved by the extension of abstaining habits. Sir W. Harcourt, as Chancellor of the Exchequer in 1886, said: "While four and a-half millions of the revenue from alcohol was lost, it had been recouped from other sources, and *there had been an enormous increase in what might be called the comforts of life.*"

Mr. Mulhall, the renowned statistician already quoted (p. 221) in his article on "Ten Years of National Growth," (*Contemporary Review*, December, 1886), confirms this evidence. He says: "The reduction in the consumption of alcoholic drinks is perhaps one of the most flattering circumstances of the day, as appears from the Board of Trade returns. . . . We cannot be surprised to

Abstinence makes for material comfort.

Statistics of Mr. Mulhall.

find that the masses of the people are better fed, since a good deal of the money formerly spent on drink is now expended for tea, sugar, and meat, the consumption of which, per inhabitant, has been as follows :—

		1875.	1885.
Meat,	. . .	95 lbs.	106 lbs.
Sugar,	. . .	63 „	74 „
Tea,	. . .	72 oz.	80 oz.”

And without this wide-spread disuse of alcoholic beverages there can be no security for British commerce, and no permanent amelioration of the lot of the British masses. In words written by Joseph Livesey, one of the noblest of temperance pioneers, as far back as 1831, and true to this day: “While drinking continues, poverty and vice will prevail, and until this is abandoned, no regulations, no efforts, no authority under heaven, can raise the condition of the working classes.”

*Words of
Joseph Livesey.*

It is a matter which affects every family in the nation, and every unit in every family. The virtuous suffer for the offences of the vicious. The fiscal burdens which strong drink entails, hamper in a very serious degree even those who shun alcohol in every shape and form. Whatever injures or impoverishes a people in their collective capacity produces a set of precisely analogous effects on all constituent parts of the nation.

*Everyone is
affected.*

Moreover, it is a personal matter, because in the single home and in the individual life, the practice of total abstinence conduces to economical well-

being. Science teaches that it protects health and strength. Vital statistics prove that it lengthens life. This alone would be much. But there is evidence available on every hand that it also improves the chances of material advancement and tends to all-round prosperity. The abstainer is more likely to obtain and to hold a good situation than the drinker. Other things being equal, he has practically the pick of the work forthcoming in any indicated department. In the inevitable trade shiftings of a complex system the abstainers are sure to be the first "hands" engaged, and the last dismissed.

Total abstinence means provision for a rainy day. As the expenditure on drink shrinks *Abstinence makes for thrift.* throughout the country, the deposits in savings banks go up, and this in spite of hard times. Again we listen to Mr. Mulhall :

"The number of paupers as compared with population has declined. . . . This decline of pauperism is quite in harmony with the rise in savings-bank deposits, and the increased consumption per head of tea, sugar, meat, and grain. . . . Habits of thrift and domestic economy have made great progress among the working-classes in the last ten years, as shown by the sums deposited in savings-banks and mutual societies, viz. :

	1875.	1885.
Savings banks, .	67	94
Mutual societies, .	20	62

*Remarks of
Lord Derby.*

Some years ago, Lord Derby endeavoured to show the British labourer the true key to the enigma, How to better a precarious position. Speaking at a meeting of a Coffee Tavern Company (1880), in the rooms of the London Society of Arts, the noble earl said: "We hear a great deal about the peasantry becoming owners of land, having gardens and fields of their own, and so forth. Do you know what an acre of good agricultural land is worth on an average? Put it at £60, and you will not be far wrong; in fact that is a high price; and if you choose to do a little ciphering, you will see that that makes, as nearly as possible, 3d. for every square yard. I wonder how many working-men think that whenever they order three pennyworth of beer they are swallowing down a yard of good land? Or put it another way. Suppose out of our drink bill of 140 millions we could save sixty; . . . and suppose that very moderate reduction continued for only ten years, how much land could the working-classes afford to buy out of that saving? It is very simple—ten million acres, or just about one-eighth of the whole soil of these islands. I recommend that as a subject of profitable meditation. . . . I don't think our great consuming class sufficiently understand how completely the publican and the tax-gatherer are identified. I don't think they quite realise that whenever they order six pennyworth of spirits, they are handing over five pence as a free gift to the Chancellor of the Exchequer."

The lapse of time has destroyed the arithmetical accuracy of some of Lord Derby's figures, but has robbed his illustration of none of its fitness, and his teaching of none of its value.

The smallest investments, when continuous and frequent over a term of years, have an almost magical way of multiplying into a great sum. The weekly "drink money" saved would suffice to place nearly every working-man in a position of security and comfort before the advent of old age. Archdeacon Farrar has somewhere repeated the story of a conversation in one of the London parks, between a physician and a pauper, eighty years of age. In reply to a question, the aged pensioner on public charity said that by trade he was a carpenter. His interlocutor asked if drink had brought him to want. The pauper answered in the negative, and assured the physician that he had never spent a larger sum than sixpence a-day—that had been his allowance for some sixty years. The physician thereupon did a little figuring, and showed the other that that sixpence a-day, put out at compound interest for the space of time he had mentioned, would have accumulated to the very respectable amount of £3226, equal to an income of £150 per annum. There would have been no need then to wear the livery of the workhouse.

*Sixpence a-day
for sixty years.*

Mr. Hoyle has pointed out that in the case of a hundred men (see p. 200), who, instead of paying 12s. per week to the publican, should enter a build-

*Mr. Hoyle's
illustration
again.*

ing society and become property owners the advantages would be cumulative. The twenty houses resulting directly from the thrift of these abstainers would let at four shillings each weekly, or a gross sum of £200 per annum, being an addition to each man's income of £2 yearly, for which he would not be required to work. The third year (if the same principles and plan were adopted) "it would be more, and the fourth year more again, and so wealth would go on increasing, the demand for labour would correspondingly grow, and along with both there would be comfort and plenty instead of misery and ruin."

Individual instances of abstaining habits eventuating in the acquirement of an honourable competence are on record in significant abundance, and in the nation at large are doubtless as plentiful as the proverbial blackberries on September hedge-rows.

*Quotations
from speeches
of "the ab-
staining
Mayors."*

"Why am I a total abstainer?" said the Mayor of Grantham, in the City Guild Hall, at the meeting of abstaining mayors, "Because—it is the way to rise in the world, and there is no other way for the working-classes of this country but to be total abstainers and push on. . . . If anyone had told me thirty-three years ago, when a poor lad with not a copper, that I should stand in the Guildhall of London, addressing a meeting presided over by the Chief Magistrate of this metropolis, I should have said that I was being laughed at."

Said the Mayor of Newbury: "I began, like the

last speaker, as a working-man. When I first went to work the custom was that each man should be allowed fourpence beer money a-day, and each boy twopence. I got my twopence and laid it by. . . . I deposited it in the savings bank, and at twenty-five I had £30, and with that began business. I have since raised myself, with the help of God and others around me, to the position I now occupy. I can say that total abstinence has answered my purpose thoroughly well. . . . I have been an abstainer forty-four years."

A great host of witnesses who feel that to total abstinence they owe, under Heaven, all that they are and have would be willing, even eager, to render similar testimony. Is there any reason whatever why their number should not be soon and largely augmented? We commend the question in all earnest friendliness to whom it may concern.

Remedy for the evils of drink—in the words of the late Duke of Albany, "the only terrible enemy whom England has to fear,"—is in the hands of the classes that are the chief sufferers. They make and unmake Governments. Let them insist on amendment of the liquor laws. They have hitherto squandered hard-won earnings on the greatest material cause of vice and misery the world has ever seen. Let them consider their ways, and withdraw their support from the manufacturers of pain, and crime, and pauperism. And this is a problem which unmistakably confronts

*Words of the
late Duke of
Albany.*

*A case for each
man's con-
science.*

the individual. It cannot be hastily dismissed as the business only of the nation in its entirety. To each man and woman in every rank or class a policy of total abstinence offers physical, mental, and financial safety and reward. Unless total abstinence is practised and advocated a burden of responsibility for the misdeeds of alcohol rests on the shoulders of the individual. And those who tamper, even in a degree fondly fancied to be "moderate," with strong drink are on the side of the wasters of the national resources, are incurring daily risks of stupendous magnitude for the sake of one of the most fleeting and treacherous of pleasures, and are guilty of an offence against the soundest and best established rules of economic science.



CHAPTER V.—THE VOICE OF PHILANTHROPY.

*Great Britain
a philanthropic
nation.*

AMONGST the features which constitute England's true greatness the development of the philanthropic spirit must be reckoned. Tried by this test the greatest nations of antiquity are placed hopelessly out of court, and Christian Britain has no serious rival except it be the nation of her own planting—Christian America. Right and left there are institutions and societies whose aim it is to make life worth living, even by the outcast and the destitute, the aged, the blind, the infirm, the

maimed in body or in soul. Organisations whose name is Legion battle with disease and vice and misery. Private bounty supplements and often supersedes State aid. Thus it is that no survey of prevailing economical conditions, as these are influenced by the presence in the land of the liquor traffic and its results, can have the smallest pretension to completeness that does not include the phenomena of philanthropic effort, and that no *précis* of the evidence in favour of total abstinence can attain to the maximum of cogency that omits the testimony of philanthropy against alcohol.

Strong drink is once again charged as a malicious enemy to the race on a double indictment. To it well-nigh every agent of philanthropy traces the wrongs and the suffering it is sought to remedy or assuage. And by the tax it levies on the incomes, large or small, of those who recognise the claims of want and grief, the finances of benevolence are cruelly straitened. So that drink not only causes untold anguish, poverty, and shame, but to the extent of its evil power denies relief to its victims. It wounds, and then stays the hand that would heal.

There is no ambiguity of utterance in the witness of philanthropy. The moral and material declension which in so large—so bewilderingly large—a proportion of cases follows on the implanting of the drinking habit, brings burning words to the tongues of those whose aim it is to uplift and benefit their fellows. Cried Dr. Guthrie, truest

*Drink again
at the bar.*

friend of the human wrecks who drifted into the dismal haven of the Cowgate at Edinburgh, and author of "A Plea for Ragged Schools," which taught a whole people the importance of rescue work among the young :

*Accusation of
Dr. T. Guthrie.*

"Before God and man, before the Church and the world, I impeach intemperance. I charge it with the murder of innumerable souls in this country, blessed with freedom and plenty, the Word of God, and the liberties of true religion. I charge it as the cause—whatever be their source elsewhere—of almost all the poverty, and almost all the crime, and almost all the misery, and almost all the ignorance, and almost all the irreligion, that disgrace and afflict the land."

*Evidence of
Committee of
Convocation,
Canterbury;*

The report of the Committee on Intemperance of the Convocation of Canterbury, issued in 1869, said : "As to the evils inflicted on society and the nation at large by intemperance, these, in their nature and amount, are not only harrowing and humiliating to contemplate, but so many and wide-spread as almost to defy computation. . . . Unless remedies be speedily and effectively supplied, consequences the most disastrous to us as a people cannot be long averted."

*of Lord
Shaftesbury ;*

Said the late Lord Shaftesbury : "But for temperance associations we should be immersed in such an ocean of immorality, violence, and sin as would make this country uninhabitable."

*Cardinal
Manning ;*

Cardinal Manning has declared : "The safety of the commercial world is being sacrificed to

swell the profits of the drink trade." "On one side are ranged the interests of this monopoly, the capital of which exceeds the capital employed in our great staples of iron or cotton or cloth; on the other are ranged the welfare of the people of the United Kingdom, the sobriety of our race, the order and well-being of homes, without which no commonwealth can long endure, for the political order rests upon the social, and the social order rests upon the domestic life of men."

Says the Rev. C. H. Spurgeon: "If it were for nothing else but the misery and poverty that this detestable thing brings upon the families of the people, Christian men and women ought to brace themselves up and say, We at least will have nothing to do with it." *and Rev. C. H. Spurgeon.*

It would be easy to increase the number of these quotations almost *ad infinitum*; but our purpose is different. The evils produced by intoxicating liquors, and which Philanthropy struggles so nobly to repair, or at least minimise, assume some forms which up to the present we have only been able incidentally to mention. But their existence is part of the heavy indictment against the drink, and part of the economical and social argument for total abstinence.

There is the home misery directly caused by the nation's drinking habits, and which militates mightily and in many ways against the well-being of the whole community. The measure of this misery no man knows or can know. Lady John *Miserable homes.*

Manners, in her little tract, "Total Abstinence as a Safeguard," well says : " I fear if each of us were to write the sad cases of destitution and crime that have come under our own personal experience from drink, we should, on comparing our experiences, be filled with horror." Yes, and with involuntary loathing of the vile cause. It is drink that makes "horrible" London, "horrible" Liverpool, "horrible" Edinburgh. And there will be no cure for the nameless abominations of our city slums till the drink traffic is crushed between the retributive mill-stones of personal abstinence and legal restriction. In the now famous pamphlet, the "Bitter Cry of Outcast London," we read :

"*The Bitter Cry.*"

"The low parts of London are the sink into which the filthy and abominable from all parts of the country flow. Entire courts are filled with thieves, prostitutes, and liberated convicts. The misery and sin caused by drink in these districts have been often told, but these horrors can never be set forth either by pen or artist's pencil."

And this utter desolation of ruin, which abrogates even natural instincts of decency, and forces men, women, and children to congregate by thousands in places and under conditions that would win the scorn of savages, is slowly worked by licensed temptation installed at nearly every street corner. It is the final plunge—short of a dishonoured grave—of the downward slope which

for myriads of working-people is at every stage a career of penury and sorrow. Any observer can see the plague in progress. Some two years ago (in 1885) a census of Saturday night drinking was taken over certain parts of the metropolis. The results were startling. Two hundred public-houses in St. Pancras, North Bow, the neighbourhood around the "Elephant and Castle," and selected districts in the west—the statistics being literally gathered from all points of the compass—were watched from nine to twelve o'clock on the Saturday night. In those three hours the 200 public-houses were entered by 48,800 men, 30,784 women, and 7019 children, or a gross total of 86,603 persons. If the average expenditure on each visit was 3d.—and it is scarcely likely to have been less—the sum of £1082, 10s. 9d. was taken in those houses in three hours. This is how the money of the poor is wasted, how working-class homes become dens of disease and iniquity, how hunger, madness, and despair obtain a menacing ascendancy.

Something must be done! Statesmen, clergymen, physicians, journalists, unite in this plaintive cry. Something must be done if England is to be saved from the doom of disaster, that treads so relentlessly on the heels of wrong. The connection between strong drink and the seething chaos of discontent and poverty, that makes stout hearts in the commonwealth quail, is no longer dim and undetermined—it is close, indubitable matter of

common notoriety, and food for the universal dread.

From these miserable, drink-blighted homes—the word is a misnomer in many thousands of instances,—there comes forth the evasively-named “social evil,”—prostitution.

*Strong drink
and prostitu-
tion.*

That drink is the most prolific producer of this second gigantic curse of our time, every man or woman who has put his or her hand to the task of reclaiming fallen females is fully aware. Drink has generally led to the first declension from the paths of virtue; drink is the instrument the tempter almost uniformly employs; drink is the resource to which the wretched recruit to the ranks of open and professed vice goes continually for fictitious gaiety, for the requisite supply of shamelessness, and for a spell to exorcise remorse.

Viewed in this light alone the increase in the proportion of female to male arrests for drunkenness, which has undoubtedly been going on for years, is of exceedingly sinister omen. And so also is the apparently heavy percentage of women visitors of the public-house bar, as exhibited in the figures of the Saturday night drinking census quoted above. Public-houses and purity of life have little or nothing in common. Alcohol is no friend to either female or masculine virtue. By the evidence given before the Convocations (committees) of Canterbury and York, publicans were shown in many cases actually to provide facilities for the carrying on by degraded women

of their horrid trade. And there is no reason to suppose — would that there were! — that the leopard has changed his spots, or the Ethiopian his skin. A newly founded religious periodical, *The British Weekly*, has undertaken to unveil a few of the secrets of “Tempted London,” and one of the Commissioners describes (in issue 11th November, 1887) how certain city inns provide special attractions for young girls, how others arrange musical evenings for both sexes, and how these free-and-easies proceed on their mischievous way, without let or check from the licensing authorities. The writer says: “The very nature of the arrangements is suicidal to morality. Young men and young women are brought together without restraint. The songs sung would not be tolerated in any reasonably regulated assembly. . . . One will hear young women boasting of the number of glasses of wine or spirits which they can take without ‘making fools of themselves.’”

*Evidence in
British
Weekly about
public-house
perils.*

Nearly thirty years ago, in Sanger’s “History of Prostitution” (New York, 1858), these words were printed :

“Apart from the drinking system, which I believe to be the most prolific source of prostitution in Britain, the following may be stated as among the principal causes : one-fourth being servants in inns and public-houses and beer-shops, &c. Were the disuse of alcoholic drinks, except under medical treatment, to become

general, in six months we should be rid of prostitution by at least one-half."

The majority of practical philanthropists engaged in rescue work in 1887, would endorse the finding.

Alcohol an ally of temptation generally.

Hardly a species of temptation can be named which drink does not abet, and the fact is almost as economically important as it is sad when considered simply from a moral standpoint. And although much of the resulting delinquency comes into the light—is too heinous to be permanently hidden,—there is more behind, and many mischievous effects which ultimately wrong the whole community remain out of sight. The *British Weekly* remarks: "If a young man were proof against the allurements of drink, he would have nothing to fear, comparatively speaking, from the temptations of London. If drinking is not necessarily the precursor of every vice, it at least accompanies them all, robbing them of their apparent grossness, and "educating" the minds of the young up to their enjoyment. There are upwards of "20,000 public-houses in London, one to every 200 people. Then there are nearly 4000 private clubs for young men, such as dancing clubs, social clubs, betting clubs, all relying mainly upon drink for their financial success. These are rapidly increasing in number."

British Weekly on this.

The voice of philanthropy is one of warning, of remonstrance, of earnest suasion. Tamper not with folly. For the sake of personal, relative, and

national thrift, walk not on these slippery places. The practice of total abstinence alone can vindicate from the charge of an improvident and deliver from the risks of a criminal complicity.

Philanthropy, again, accuses strong drink of creating the terrible malady of chronic inebriety, and thereby neutralising much costly effort to uplift the fallen and reclaim the vicious. It is coming to be universally recognised that inebriety is a state of disease. The verdict of the experts at the International Congress upon the subject, that assembled in London, July, 1887, was practically unanimous upon the point. Many eminent authorities, British and foreign, hold with Dr. N. S. Davis, of Chicago, that, when the disease is fully developed, the victim "should then not be held responsible for his acts," but should be confined in an asylum until cured. *Chronic inebriety a disease.*

According to the Government returns of 1885, there is an army of some 40,000 habitual drunkards, known to the police *as such*, in this country. The fact is indicative of almost insuperable obstacles in the path of the comprehensive moral and material improvement which enlightened benevolence would fain bring about. At the season of gaol discharges there attend at every prison gate those who would take the released convict by the hand and procure for him the chance of redeeming the tarnished past. But in numerous instances the existence of the drink crave renders the praiseworthy enterprise futile.

*Increase of
female
inebriety.*

Especially painful to contemplate is the evidence, accumulating from so many quarters that inebriety is largely on the increase amongst women. The grocer's license is arraigned, and we believe justly, as one of the causes of this miserable and ill-omened phenomenon. The fact warrants profound alarm, for it means the transmission of the drink evil to unborn generations. Thus the clouds gather over the future.

All experience proves that, in default of total abstinence, no remedy is of the smallest avail for chronic alcoholism ; and wherever there is the remotest suspicion of the beginning of this insidious mischief, it will be daily augmentation of a grim physical, moral, and economical peril to continue the alcoholic habit.

*The wrongs of
children.*

Lastly, under this heading ; philanthropy pleads decisively against intoxicating liquors and in favour of total abstinence by exhibiting the consequences of drinking as revealed in stunted, depraved, woe-begone child-lives. The gold cannot be counted that has been disbursed out of the purse of benevolence to rescue the children. Nor is it feasible to estimate the material forfeit paid by the State for the wrongs which alcohol inflicts on the juvenile population of the country. We do not now refer to the heredity of alcohol in a narrow and scientific sense. That has been dealt with in an earlier section. There are other ways in which the sins of the parents are visited upon their offspring. Said Canon Basil Wilberforce (speaking at

Southampton, 30th August, 1886): "Thousands of little ones never have any youth at all, but are born into this world already old, prematurely scarred and stained, wizened and aged before they are seven years old." On the street, in the ragged schools, in reformatories and industrial homes are at this hour many thousands of children who, young as they are in years, have suffered terribly in body and estate through the drink curse. To what blood-curdling tales of callous neglect and fiendish cruelty do those who have the oversight of philanthropic institutions for city waifs and strays, or who dive into fœtid courts and alleys to gather in rough diamonds, have to listen. Mr. Gough tells of 1600 outcast children thus collected on one occasion. On examination 162 confessed that they had been in prison, some not once merely, but several times; 170 slept habitually in low lodging-houses; 253 lived by begging; 216 had neither shoes nor stockings; 280 had no head-covering but their own matted locks; 101 had no linen; 249 had never slept in a bed; 116 were runaways—probably from drunken tyrants of whom they stood in daily and nightly danger of their lives; 68 were the children of convicts, and the cause of this wretchedness, in 49 cases out of 50, is—Drink. Does any one ask how it is that, with so many preventive and reforming agencies continually at work, the spectacle of child vice and crime remains with us? This is the answer, The liquor traffic still exists.

*Analysis of
group of 1600
waifs and
strays.*

The drunkard's child is surrounded from the first with an atmosphere inimical to purity, and with an environment that produces deceit. From the very starting-point the landmarks between right and wrong are destroyed; honour has no place in the alphabet of life which these babes are taught. On the altar of our modern Moloch souls as well as bodies are sacrificed.

*Child slaves in
England.*

Through the drinking habits of those who should have been their protectors, thousands of children of tender years are committed to the most grinding slavery. Philanthropic investigators speak of mere infants imprisoned in unwholesome garrets or cellars, making match-boxes from early morn to late even-tide, or toiling with their tiny fingers the day through sewing canvas into sacks, their earnings being at the rate of a farthing apiece. And brewers make their profits, and there is talk now and again of "a beer boom" in the stock and share markets. Little heed is paid by the monopolists to either the moral or economical results of the trade in alcohol. It is the weak and the obscure who endure the weary incidence of pain. What matters the fate of the residuum, adult or juvenile? Yet—

"The child's sob in the silence curses deeper
Than the strong man in his wrath;"

and there is a reward for these atrocities. We are bold to say that only the total abstainer has clean hands in this matter.

Drunkenness tends in every way to blight the young life which grows up under its sinister shadow. Of the drunkard's children drunkards are systematically made. The sombre truth is established by irresistible evidence. We have seen how between the hours of nine and twelve on one Saturday evening 7019 children entered 200 of the London public-houses. A similar census of the city of Bristol, taken in 1881, showed that in four hours 12,000 children entered 900 drink shops. Said a saloon bar-tender to an American inquirer (reported in *New York Herald*): "Watch those children. They'll drink half that beer before they get home." The children in question were two little girls of six and eight, and before the reporter's eyes they fulfilled the prophecy. "I have lots of such customers," went on the bartender. "Girls and boys and women form half our trade. We call it family trade. It pays our expenses. Our profits come from the drinkers at the bar. But I tell you what—half the children who come here drink. *That's how drunkards are made.* Their fathers and mothers send 'em for beer. They see the old folks tippie, and begin to taste the beer themselves." Mr. Conybeare's Sale of Intoxicating Liquors to Children Act, passed in 1886, to remedy as far as practicable this crying evil, is likely to be of much value, if energetically put in force. But it will not alter the phenomenon of the drunkards of the next generation coming forth from the drunken homes of this. It will

*Juvenile
intemperance.*

*A bar-tender's
statement.*

not in itself prevent the consequent burdening of the nation with crime, insanity, and pauperism. For this much-to-be-desired rejection of the Old Man of the Sea from the aching back of foolish Sinbad, the spread of temperance sentiment and abstaining habits amongst all classes of British society is required.

Over a very wide circle, then, philanthropy finds alcohol to be an agent of destruction, a minister of shame, penury, and sin. Every good work is rendered harder through this mighty curse, with its endless ramifications. And, with the best efforts which benevolence can put forth, these Augean stables must continue practically uncleansed until the nation as a whole banishes intoxicating liquor. Thirty years ago Samuel Morley, writing to his friend, Joshua Wilson (*vide* "Life," by Mr. E. Hodder), said :

*Words of
Mr. Morley.*

"What is to be done with the drink evil? It is the monster grievance of the present day. It seems to me something like infatuation to be building and supporting, at great cost, reformatories and other institutions while this huge cancer remains unremoved." And writing to Mr. Gladstone in his life's eventide he styled drink "the greatest of all modern social evils — greatest because so distinctly the parent of other evils."

And those are words of *soberness and truth*.

Résumé.

Summarising the section in a paragraph, we have seen that the highest economy of life is only

possible by the adoption of the policy of total abstinence from strong drink ; that the direct cost to the nation of alcoholic habits is an average expenditure in recent years of £128,500,000 per annum, and has been more ; that the inseparable results of the drink system are insanity, disease of every sort, accidents, crime, pauperism, and measureless degradation and shame ; that the indirect loss which thus accrues is at least equal to another £100,000,000 yearly, and that the kingdom can ill bear the burden ; that a share of the responsibility lies at each man's door ; that individual abstinence means home comfort and thrift ; and that the witness of philanthropy is at one with the plain witness of political and social economy.





VI.

THE EDUCATIONAL CLAIMS OF TOTAL ABSTINENCE.



CHAPTER I.—THE IMPORTANCE OF EARLY TEMPERANCE TRAINING.

AS the twig is bent, so grows the tree. There is a world of truth in the simple proverb, and it is truth that has closely woven relations with the subject of our present discussion. Experience teaches that unwise habits and vicious tastes contracted in youth are hard to overcome, that seed sown in juvenile minds is sure to produce a harvest, that the first steady inclination given to young purpose is likely to guide the life. And all this can be applied to the question at issue between strong drink and total abstinence.

On every ground of economical expediency and moral right, it can be shown that it is the duty of parents, guardians, teachers, and of all who are

privileged to exercise influence over young people, to educate them in temperance principles.

In the first place, proof is overwhelming that *A great stake.* the conservation of the most vital British interests—commercial and other—depends on the speedy dethronement of alcohol, and that in the accomplishment of this great work all lovers of their fatherland are interested.

But what surer method can be adopted to put an end to the supremacy of alcohol than so to instruct and train the children as to have in the near future whole generations of abstaining parents pledged to warfare *à l'outrance* with the national curse, and knowing *why* they abhor and avoid intoxicating liquors? None.

And then science teaches clearly and decisively that there is risk in tampering with strong drink. Prevention is easier, as well as infinitely better, than cure. The fatal fetters of indulgence are readily forged, but are snapped with the utmost difficulty.

Considered in its broader aspect, too, education must of necessity include not merely the imparting of knowledge of letters, and the development and guidance of mental powers, but also the enlightenment of conscience, the quickening of the moral senses, and an adequate preparation for the performance of life's duties, and the avoidance of life's perils. This ideal is never reached where the truth concerning the genesis and genius of strong drink is not communicated.

All this has long been seen by temperance reformers, philanthropists, and occasionally even by statesmen.

At a Temperance Conference held in Exeter Hall, 19th May, 1834, under the presidency of Professor Edgar, of Belfast, a resolution was adopted, of which the following formed part :

*An early
appeal.*

“The rising generation being in an especial manner the subject of the temperance societies’ anxiety and hope, it is affectionately recommended to those who have charge of schools, particularly Sunday and other schools for the working classes, to make the fundamental principles of the temperance society a subject of their early and very decided instruction.”

*Proposals of a
Belgian states-
man.*

The Belgian Minister of Finance, in a report on intoxicating liquors, laid before the Chamber in 1868, suggested the inauguration of a system of public education which should tend “to inculcate in the children by counsels, pictures, and writings, horror of excess and fear of the evils sure to result from intemperance or the least use of intoxicating drinks.”

*Statement in
Report to Con-
vocation of
Canterbury.*

The report of the Committee of Convocation (Canterbury), to which we have already repeatedly referred, placed on record (1869) the opinion of its authors that “special teaching on the evils of intemperance ought to form a branch of education in all our schools.” It is added : “The only education that can cope with the temptations to drink is one that shall cultivate not only the mind but

the heart ; which shall embrace the encouragement, by every proper means, of a love of home and home enjoyments, as the natural and proper counter-action of the seductions of the public-house ; and the general dissemination among the people of sound information as to the actual effects of our drinking habits upon their moral, social, and physical condition."

In August, 1875, at a large and influential meeting of medical men, on the occasion of the visit of the British Medical Association to Edinburgh in that year, it was resolved unanimously :

The "Edinburgh Resolution," 1875.

"That steps be taken to induce the School Boards of the country to include among the subjects of instruction in elementary schools an accurate knowledge of chemical and physiological science respecting intoxicating beverages."

Since 1877 the London School Board has responded practically to this public invitation by issuing to their teachers a series of declarations expressly drawn to encourage "the occasional instruction of children, by examples, warnings, cautions, and admonitions, in the principles of the virtues of temperance."

Action of the London School Board.

And to prove the depth and sincerity of American feeling in this matter we have the fact, full of good omen, that in May, 1886, the Congress of the United States passed a "National Temperance Education Law," in which are embodied the following (with other) provisions :

The U.S.A. Temperance Education Law.

"That the nature of alcoholic drinks and nar-

cotics, and special instruction as to their effects upon the human system, in connection with the several divisions of the subject of physiology and hygiene, shall be included in the branches of study taught in the common or public schools, and in the military and naval schools throughout the United States.

“That it shall be the duty of the proper officers in control of any school described in the foregoing section to enforce the provisions of this Act.

“That no certificate shall be granted to any person to teach in the public schools, after the 1st January, 1888, who has not passed a satisfactory examination in physiology and hygiene, with special reference to the nature and effects of alcoholic drinks and other narcotics upon the human system.”

In this highly satisfactory manner has legislative effect been given to the wishes of social reformers across the Atlantic. Is Great Britain to lag behind? That is a question which British voters have it largely in their power to answer. They can quicken the unconscionable pace of their representatives. The Lords of Education will act when Demos, in unmistakable accents, issues the order. The need for action grows yearly more urgent. It is imperatively necessary to have the public mind thoroughly enlightened as to the nature and attributes of alcohol, and aroused to the magnitude of the stake which is involved. And the direct road to this end is through the schools. The late Dr. Willard Parker, of New York, well said:

“ We shall never control alcohol until we have taught the people, first, what alcohol is ; second, what it will do to us if we drink it ; third, what it will make us do. *I can see no way that this can be done but through the schools.*”

*Words of Dr.
Willard
Parker.*

The facts are not to be disguised that in strong drink we are confronted with an enemy to physical and moral health, and to material prosperity. The foe is subtle, vindictive, and unsparing. The drink evil decimates the community with more horrible persistence than any ancient plague. Alcohol destroys youth in its fresh beauty, manhood in its vigour, and age in its tottering feebleness. It has no compunction for fairest woman or frailest invalid. It breeds numberless diseases, nearly every known species of crime, idleness, destitution, and vagrancy. In the memorable words of the Right Honourable W. E. Gladstone, spoken in the House of Commons, 5th March, 1880 :

“ It has been said that greater calamities are inflicted on mankind by intemperance than by the three great historical scourges, war, pestilence, and famine. This is true for us, and it is the measure of our discredit and disgrace.”

*Declaration of
Right Hon.
W. E. Glad-
stone.*

And yet how intermittent and insufficient have been the efforts hitherto of political and educational leaders to insure that the youth of the nation shall be effectually taught these grave truths. It is through a more or less culpable negligence that there is found at this day in the minds of so many young men and young women,—and in spite of

the flood of light in which science has bathed the iniquities of alcohol,—the mischievous hallucination that some benefit is conferred by strong drink, or at any rate that the pleasures of “a glass and a gossip” are harmless. If there were really death in the pot, surely parent or teacher would have uttered a warning word.

A thorough-going reform is imperative. Grievous wrong is done to the son or daughter who is sent unarmoured into the thick of this grim fight. It is one of the blunders that are worse than crimes to launch a boy into business life without instructing him that alcohol is poison — poison in whatever specious shape it may be offered ; that “moderation” is a delusive catch-phrase which nobody can explain ; that true moderate drinking may be water drinking, or tea drinking, or peradventure cocoa drinking, but is never dram drinking, and that total abstinence will conduce to his personal safety and happiness, to the success of all his undertakings, and to the financial stability of the nation whose fortunes he shares.

Work for the future.

It is a weighty reason for adequate temperance education of the young that the future is banked with the children. What they will do with it, what they will make of it, for themselves, for their native land and for humanity at large, depends in great measure on the conceptions they form in early days of the relations of temperance to life, labour, and morality. If they are well informed, and comprehend the true bearings of the drink

problem, the horizon will be bright with hope, and the days of the liquor traffic will be numbered. The past has been the season of the adversary's triumph; the present is the period of stern, unflinching conflict, with the call to battle ringing in upon the consciousness of all noble souls; but the morrow shall bring victory if the children are trained aright. Point out to them the path of duty and persuade them to tread it, and the forces of darkness will be routed.

Again, a host of melancholy examples show *Hidden perils.* plainly that to some—to many—the imbibing of temperance instruction in youth, and the consistent practice of total abstinence which is likely to follow, are the only safe barriers against the onset of temptation, which if yielded to must cause swift ruin. The inherited alcoholic taint is no fiction. Wherever strong drink is there is peril; but to one in whose system the drink crave lurks, the danger of touching alcohol is portentous. As unerring in pursuit of the victim as his or her own shadow is this fell foe, Hereditary alcoholism. Only in unwavering abstinence is there escape. If alcoholic habits are contracted at all, the end is practically certain in every such case. When or where the smouldering fire may declare its presence and run its course of destruction only the event can determine. But if the opportunity is given it will not be let slip. And it is impossible to say who are marked as potential sufferers. The drink entail may pass at seeming random over one

generation to fix its awful burden upon the bodies and minds of the next. Undoubtedly it often happens that parents who regard themselves as temperate in all things transmit to their sons and daughters a bias to inebriety which, if the drinking habit is once formed, will issue in disease, crime, madness, or premature death. In a paper ("Effects of Alcohol on Women") read at a Ladies' Temperance Conference held in the Cannon Street Hotel, 23rd May, 1884, Dr. Kate Mitchell said: "It is no reason to assert that, because we are reasonable and temperate in our habits and desires, our children and others should be so too; we can never know the constitutional taint possessed by so many which is only awaiting the sowing of the seed to burst into the upas tree that is to poison and ruin the whole future life."

*Evidence of
Dr. Kate
Mitchell,*

There is only one remedy which will save every child from becoming a victim of intemperance—the child from the most noisome London cellar and from the most cheerless Edinburgh attic, the child of the harlot, the thief, and the vagrant, the child of the secret tippler and of the abandoned drunkard: It is total abstinence.

*and of Dr.
Andrew
Clark.*

Numbers come into the world with a curse—the words are Sir Andrew Clark's—"not only upon them, but in them, the terrible desire for that which is to blast them speedily." Shall not the prey be taken from the destroyer? Shall not such temperance principles be instilled into these young minds as to deliver them from the threat-

ened doom? On every hand child innocence, child ingenuousness, child weakness are claiming protection, guidance, and help.



CHAPTER II.—THE WORK AND THE WORKERS.

To realise even partially the importance of instruct- *Nominal*
ing the young in temperance principles, and of *assent is not*
thus safeguarding them from the many perils of *enough.*
alcoholic indulgences, is much; but to understand the full range and the best methods of this momentous labour, and to acknowledge practically the very beginnings of personal responsibility, is more. There are many who admit in words that children have a claim to be trained as total abstainers and to know the why and wherefore, but who never make the slightest effort to give effect to the opinion, or, worse still, who by example commend the drinking habit.

In a brief chapter we desire to point out (1st) what should be taught, and (2nd) to whom the voice of duty speaks in this matter.

No vague advice will meet the urgent needs of the case. The spirit of inquiry is abroad, and a reason must be rendered to the quick young minds for the total abstinence which they are asked to adopt as a life principle. It should be easy to impart teaching at once clear and conclusive. The lines will naturally be these:

*Suggested basis
of instruction.*

That alcoholic liquors can neither nourish nor support the physical life of man. That their chief informing agent is, on the direct contrary, a deadly poison, always mischievous, and capable, when administered in sufficient quantities, of causing immediate death.

That alcohol injures every organ of the body with which it comes in contact, and thus causes many formidable and fatal maladies.

That it invariably disturbs the faculties of the brain, and that the mind is often shattered beyond repair by the action of this cruel drug. Moreover, that every sensibility is blunted, and every base passion inflamed by the resort to alcohol.

That the taste for strong drink is not natural, but acquired ; yet, when once contracted, is apt to develop with awful swiftness, and to become an insatiable appetite, inimical to peace, prosperity, health, and even to life itself.

That intoxicating liquors produce incalculable misery and shame, that they waste the nation's capital, and tend to the poverty of all who drink them ; and that there is no greater impediment the world over in the path of all material, intellectual, moral, and religious progress than the liquor traffic.

The materials to substantiate every successive point in the argument are now conveniently to hand in popular scientific text-books, in official reports and statistics, and in the plain statements of eminent investigators, on whose entire

good faith there can rest no shadow of suspicion.

This, then, is the work. Who are the workers? Two classes have been already specifically named—parents and teachers.

There can surely be no debate about the proposition that those who bring the children into being are bound to provide for the wants of their immaturity, to protect on every side their innocence and feebleness, and to shape to the best of human ability their future to high and useful aims. Even by the verdict of a giddy and careless world parents are responsible for the wise training of their offspring. Every one instinctively recognises the nobleness of the reply of the Roman matron, who, asked by some curious visitors to exhibit to them her jewels, brought two winning boys into the apartment, and said with touching dignity, "These are my jewels." Yes, the children are the true jewels of the mothers and fathers of Britain, and should be watched and cared for and kept from the spoiler with the utmost love and solicitude. The work of temperance teaching is, first of all, the parents' work.

Parents will be listened to with more heed than any other instructors; their influence will be more decisive; their wishes will carry greater weight. It is the natural posture of the child-mind to accept with sunny confidence what is offered as a dictum of parental experience. And where pains are taken to instil sane ideas and right

Parental obligations.

Parental injustice.

ideals into these young minds, it will often be found that they are wondrously receptive in very early years. Intuitive perception frequently precedes exact knowledge. Unfortunately, however, parents do not always think that it is necessary, or worth while, or consonant with their stateliness to care personally for the moral training of their children. They leave it to the schoolmaster, the governess, or the teacher in the Sunday school. Some, alas! act towards their little ones consistently in the spirit of the wretched conventionalism that speaks of children as "incumbrances." By such neglect they shirk one of the most elementary duties which they owe to God and man. Patriots they may not be called, for the weal or woe of this kingdom hangs upon the adequate enlightenment and warning of the coming generations. By ignoring the fact that the influence of home-training is more powerful and far-reaching than any other, they are positively placing a premium on subsequent disaster. "Why was I not told what drink would do for me if I touched it?" is the agonising heart-cry of many a prodigal hurrying with narcotised will down the steep slope to destruction.

Or error.

But there is another offence, perhaps in some cases even more grave than complete silence, which is not seldom, we fear, committed against young lives debouching on to the great highway of humanity. Numbers of young people are persuaded at home, both by precept and example, that the true solution of the temperance problem

is the steady practice of so-styled "moderation." The supposed worldly-wise advice neither to be singular on the one hand nor to go beyond an always ill-defined limit on the other, is chargeable with thousands of wrecks on the sunken reefs of intemperance. Such counsel ignores the truth that real moderation—*i.e.*, temperance—includes not merely a regulated participation in things wholesome and lawful, but also, in Cicero's phrase, "abstinence from all things that are not good and entirely innocent in their character." It forgets the grim facts of hereditary alcoholism, and presumes on the possession by young people of a native power of resistance which the event may sadly show to be quite illusory.

The parent who encourages a child to play with fire has no just ground for surprise if harm ensues. Alcoholic drink is liquid fire, and no human foresight can determine the consequences, near or remote, of inviting an innocent boy or girl to take just "a little wine." A conscience salve it may be, but a successful evasion of responsibility it is not, to add the advice to "always watch the habit."

The work belongs, after the parents, to teachers of every class and denomination. It concerns public elementary teachers, and the State as being the great subsidiary of primary education. We have shown that this is gradually becoming understood. It was a notable new departure when in 1875 Dr. B. W. Richardson consented to write for

The duty of teachers.

the National Temperance League, "The Temperance Lesson-Book," for the use of schools. This has been largely introduced and used at home and abroad, and has received official recognition from the educational authorities of numerous British Colonies, of Holland, and of the United States. As early as November, 1879, the Board of Education of New York formally authorised the use of Dr. Richardson's text-book in the city schools; and the editor of *Scribner's Monthly* (Dr. J. G. Holland) thereupon wrote: "We hope there are a good many teachers in the city who are willing to take up this book and teach it to their classes, for there is no doubt that boys go out into the dangers of the world lamentably ignorant of those that await them among the drink shops."*

Scribner's
Monthly on
this.

Other scientific writers,—Dr. Ridge must be mentioned,—and other philanthropic institutions on both sides of the Atlantic have followed this lead in preparing suitable temperance class-books for young people. In addition, during the last seventeen years (1870-86), some 7000 lectures on alcoholic liquors in relation to health and economy, have been given by temperance agents in Metropolitan and provincial elementary schools. Unquestionably much precious seed has thus been scattered, the results of which will appear after many days in the contented and prosperous homes of abstaining artisans.

It is keen personal interest that is required on

* See Notes.

the teacher's part. This will infallibly lead to the putting forth of strenuous efforts. The State ought to insist that in England as in America, elementary school teachers' should equip themselves with the scientific, economic, and moral facts of this vital controversy. But no teacher who feels the pressure of individual responsibility will wait for compulsion. Viewed in a strictly professional light, strong drink is the teacher's enemy. It is from drink-cursed homes that the half-starved, cowed, weakly children come, who test to the utmost the master or mistress's teaching ability, and by their irregular and unpunctual habits lower the average attendance of the school. The "grant"—name of might in the teacher's ears—suffers from the indirect interference of alcohol. In this fact alone there should be sufficient inducement for every teacher of an elementary school, to impress upon the minds of the scholars the truth concerning the deleterious action of intoxicating liquors. And the honorary workers in the Sunday school are under the same yoke of duty. It is accepted as an axiom now that children ought not in their young days to touch strong drink. But they must be shown one great reason for the prohibition in the relations of alcoholic beverages to morals and religion. And this is pre-eminently the work of the Sunday-school teacher. Experience has proved that the temptations for which drink paves the way, are more fatally instrumental

A professional inducement to personal effort.

Duty of the Sunday-school teacher.

*Investigations
of Mr. T. B.
Smithies.*

than any others in causing the ruin of bright and promising scholars. The late Mr. T. B. Smithies once applied to a number of prison chaplains, for the purpose of ascertaining how large a proportion of the prisoners to whom they ministered had been Sunday-school attendants. From the replies obtained it appears that Sabbath-school instruction had been received by 6572 out of a total of 10,361 inmates of the principal British gaols and penitentiaries. And nothing is more irrefutably established than the close connection between drink and crime. To foil this agency of evil all who engage in the work of Sunday-school instruction are bound to speak plain, unequivocal words of temperance counsel, and to use their best influence to guide young feet into the secure highway of total abstinence.

*Value of
Bands of
Hope.*

A helping hand should be given, whenever and wherever opportunity offers, to the Band of Hope. One of the happiest auguries for the future of the Christian Church exists in the fact that so many of her lambs are in this sheltering fold. A Sunday school without such an auxiliary is not blameless. Any Christian community fails in duty that through indifference, sloth, or lack of pronounced temperance sentiment, neglects to found and maintain a Band of Hope, for it is the special province of this noble institution to show the little ones that temperance is the handmaid of religion, the guardian of morality, and the friend of every virtue ; that the drinking habit is always a curse and a snare.

The responsibilities and obligations of parents, of the State as dominating the system of primary education, of day and Sunday-school teachers, and of those who have it in their power to countenance and assist Bands of Hope have been under review ; and we have seen that the claims of the young to temperance teaching are binding upon all recognised providers of education. But are there no others who are implicated in this matter ? The question must be answered in the affirmative. Let no man or woman say that he or she is entirely without influence, and is therefore *minus* responsibility. Such a statement in the very nature of things is incorrect. The attempt to substantiate it would inevitably break down. Even should it be that the special and sacred influence accompanying family relationship is absent ; and that teaching by the spoken or printed word is precluded by temperament or circumstances, there is yet a power which all exert, which none can supervise too carefully, and which in its issues is often fraught with consequences of the most startling and terrible character. Its name is *Example*.

An individual obligation.

CHAPTER III.—A UNIVERSAL OPPORTUNITY.

CHILDREN are great imitators. To affirm that is *Juvenile* to affirm a truism. Hardly shall a home blessed *copyists.*

with the presence of little ones be discovered in England, where the boys do not fancy that it is manly to copy papa, and the girls that they are fast approaching the stature and estate of women if they can dress, speak, and act as mamma does. Their merry jest has earnest in it. Yes, and they notice quickly, and store up in marvellously retentive memories impressions from every quarter—some that may help them to make a good fight when they enter life's crowded arena, some that will certainly prepare the way for mistakes and failures. The conduct of every individual is potent to affect for good or ill the observant young people before whom its noble or ignoble copy is set. From this personal responsibility there is no release. In the social circle, on the railway platform and in the train, in the public dining-room, under all sorts of continually shifting conditions, the lesson is being placed before apt if unsuspected pupils. Fine distinctions will count for very little. The drinker may take pride in his conspicuous moderation, but to the child who watches his walk and conversation the example set is a drinking example, and neither more nor less. That child is likely to draw the deduction that what is apparently good for his elder will be good by-and-by for himself, and such an inference if ultimately acted upon—possibly years after—may mean ruin. On the other hand, a refusal by an adult of intoxicating liquors in the presence of a child may cause at very least a curiosity that shall eventuate in adequate

*Child critics
too often
ignored.*

enlightenment on the perils and mischiefs of alcohol. Good may be accomplished by the abstaining example; harm cannot. And the influence exerted is likely to be in close approximation to the respect or regard in which children hold the particular adult who shows them in action—teaching through Eye-gate—what are his or her views upon the temperance controversy. Boys and girls are almost invariably hero-worshippers, and it is often their keen delight to mould their demeanour and doings upon those of unconscious living patterns. Most of us have seen children imitate thus the gait of some valued family friend, not in mockery, but because to the juvenile apprehension the individual thus favoured is great and good and wise, and it reflects credit even to take the same measured steps and assume a similar carriage of body. What the lads and lasses do in their light-hearted ingenuousness with respect to the reproduction of physical revelations of character they will also attempt on possibly more perilous lines. A drinking example placed at their disposal by some hero or ideal whose hand they can grasp and whose voice they can hear, has a sway which it is difficult indeed to counteract. Oh, to be clean-handed in this matter! to recognise that to further in every way the educational progress of the temperance cause is a bounden duty, and that in the fulfilment of the obligation it is invariably advisable even to forego what is believed to be a safe and “moderate” indulgence in order to provide

for the children the safe pattern of total abstinence.

*Mischief
wrought
ignorantly.*

It may easily happen that through shortcomings on the part of those who are naturally looked up to as guides, the work done in other quarters shall be of no real avail. Much patient precept is fruitless through home example of directly opposite tendency. And in many instances simple thoughtlessness is to blame. It is not intended to lead little feet astray. Such an idea would be abhorrent. But for all that the mischief is done, the seeds of evil habits are sown in congenial soil, and some conscientious teacher of true temperance has laboured partially in vain.

*Contrasted
principles:
these antagon-
istic and irre-
concilable.*

If there were no other argument against social drinking customs than the dangerous nature of the example which is placed before young people by subscribing thereto, it ought to suffice to shut out the drink from every home over the threshold of which a child passes. It must not be forgotten that the question at issue between the advocates of "moderate drinking" and total abstinence is not one of degree, even if, superficially considered, it should seem so. A principle is at stake. The total abstainer, finding alcohol branded by science as a treacherous poison, by social science as a huge menace and an ubiquitous nuisance, and by economy, general and particular, as a shameless waster, resolves neither to touch, taste, nor handle the noxious drug. He accepts the logical theory of legitimate temperance without any specious

reserves. The "moderate" man argues by his action, if not in so many words, that a little poison will do him no harm, that what happens to his neighbour or to the community at large hardly concerns him, and that even the rules of thrift must have one glaring exception. We repeat that there is here a fundamental divergence. And whoever exhibits to impressible young people the example of personal alcoholic indulgence tacitly defends and advocates not only a harmful habit but also an erroneous and misleading principle.

The responsibility, then, cannot be overrated. *Plain duties.* For the sake of England's honour and greatness, for the sake of every noble enterprise the wide world over, the children must be saved from the clutches of the demon of intemperance. And this can only be achieved, first, by earnest temperance teaching about the facts of the drink problem, and second, by the silent, persuasive might of a good example. The latter influence it is within every one's reach to exercise.

There are two paths, and only two. One is called moderation, but has many a pitfall of excess into which hapless victims stumble. The other is total abstinence, and all experience shows that it is safe. Examples lead on either road. Be it ours to remember the little ones, and select the highway of peace and security.



VII.

THE PLEA OF RELIGION.—CONCLUSION.



CHAPTER I.—STRONG DRINK THE FOE OF THE GOSPEL.

*Many charges,
and all
justified.*

THE argument against indulging in intoxicating liquors and for the consistent practice of total abstinence is many-sided. It is to be feared that the very number and magnitude of the counts in the indictment, substantiated by overwhelming evidence to the condemnation of alcohol, has had sometimes the effect of confusing the popular mind. Nevertheless, the character of “the demon drug” is to the full as black as the most vehement opponent of its baleful influence has ever affirmed. No light breaks on this horizon; and, tried by the most solemn of all tests, alcoholic beverages are found to be an offence to the loving Christian heart and a scandal to the enlightened Christian conscience.

The principles of that Holy Kingdom which is righteousness and peace are sternly antagonistic

to the prevailing drinking customs, and there is no more serious obstacle in the path of the moral reformer and the teacher of Christianity than the almost omnipresent drink evil. Strong drink is the enemy of religion at home and abroad.

There is no need to quote any particular Bible warnings against wine as a mocker—as veiling with its ruby fascination a venomous, adder-like sting. The fruits of the liquor traffic are its own unsparing impeachment. We do not require to examine texts, either severally or collectively, still less to enter upon an elucidation of the true composition and attributes of Bible wines. In the words of Dr. Cuyler, of America, “We can discover enough arguments against intoxicants in the very laws which the Creator has written upon the human body ;” and we are all witnesses, willing or unwilling, of the warfare which drink wages upon purity, rectitude, and all moral and spiritual health. The Christian Church, as a whole, is alive now to the momentous nature of this struggle. The time was when a strange lethargy oppressed her. The worker for God and for humanity, who traced the vice from which he was so powerless to reclaim perishing souls, and the squalid misery that so often led to crimes of despair, home to the demoralisation produced by the staple commodity of public-house and gin-palace, and began to teach total abstinence by voice and example, was thought a fanatic. The religious world is with him to-day. The Church has

A broad basis for the present argument.

*The Church
aroused ;*

*and not too
soon.*

awakened ; those who differ widest about questions of creed or of ritual are happily united on this common platform of hostility to the chief cause of the abounding social and moral wreckage. The evangelisation of the masses in this land and of the heathen millions in Asia and Africa is impeded by strong drink as by nothing else. It is alcohol that counteracts the self-sacrificing labours of the city Bible-reader and the foreign missionary. Drink degrades where these, by aid of their blessed message, would uplift ; debases where these would restore ; ruins where these, in their Master's strength, would save. Drink dogs the footsteps of the repentant and returning prodigal, and drags him back by the fatal chains of habit to the old vicious courses. Drink sears the conscience, and hardens the heart, and benumbs the brain. Drink is busy at the undoing of every good work ; it is an enemy to the genius of Christianity, the complete success of which would drive the Gospel vanquished from the field, and make a veritable hell of this fair earth. In the early days of his ministry in lovely Indiana the late Henry Ward Beecher, afterwards of Brooklyn Church, wrote the following scathing paragraphs (amongst others) in an open letter, addressed to a professed Christian who was proprietor of a distillery :

*Rev. H. W.
Beecher on the
manufacture of
drink by pro-
fessed Christ-
ians.*

“ While every morning around the family altar you breathe a Christian's thanksgiving and utter a suppliant's prayer, your whisky is busily at work, opening hundreds of mouths with bitter curses. . . .

On the Sabbath day, . . . as you turn your steps to the church to partake of its refreshment and worship, how many are there who have been drunk all night on your whisky, and whose heads yet reel with the fumes, and will reel until they 'seek it again'? While you look heavenward they tend hellward.

"What if you should sit down in the quietness of some Sabbath evening, and in that hour, ripe for meditation, by some supernatural power God should bring before your eyes all the results of the whisky made by you. From the tent of the far away Indian, from the hamlets on the verge of civilisation, from the villages far and near, from vale and hillside, from dens of vice and lairs of crime, from the adulterer's chamber and the murderer's haunt, would come trooping to your eyes all the ghastly disfigurements of abominable iniquity—each impersonated evil as it flitted past would point at you its withered hand and cry, 'Thou art my author.'"

In a wider and more impersonal sense it is even so. Drink is the author of sins without number and woes without measure. It forms, perpetuates, and battles to increase home heathendom. Drinking,—not of necessity drunkenness,—occasions widespread neglect of public worship, and indifference to the highest interests of the immortal spirit of man; it produces a secret world of moral pollution; it vitiates in a greater or less degree every scheme for ameliorating the physical, intellectual, moral, or religious condition of the people.

It is surely no want of data upon which to form

No valid defence of indifference.

a decision that in these days prevents those who name the name of the spotless, sympathetic Christ from setting their faces like a wall of adamant against social drinking practices. Charity would desire to believe that the Laodicean attitude of so many comes from want of study and meditation. If Christians paused to consider, looked earnestly on the deadly evils of intemperance, and recognised what it is that blocks the path of Christian advance and renders nugatory so much Christian work, they would inevitably be convinced that total abstinence from intoxicating liquors is a duty they owe to their Lord and Saviour. How else can they pray, "Thy kingdom come"?—the curse of alcohol retards it. How else can they claim to have at heart the welfare of their brethren?—the curse of alcohol slays its thousands and its tens of thousands at their very doors. How else can they plead for blessings temporal and spiritual in their own homes?—the curse of alcohol crowds countless other homes with anguish, lamentation, shame, and death.

And in distant countries strong drink is equally potent to delay the Gospel triumph. Blood is on the garments of Great Britain, and dire disgrace rests upon the English name through the unutterable wrongs done by British fire-water in lands which knew not the curse until, forsooth, the "Christian" traders of England introduced it. Terrible is the thought that no sooner is the rule of the modern mother of nations established over

an alien soil than a devastating blight descends on the hapless indigenous races. They receive at our hands, first and foremost, not civilisation and Christianity, but degradation and destruction.

“We have girdled the world with a zone of drink. Missions to the heathen are but tardy acts of the most necessary reparation.” *Words of Archdeacon Farrar.*

That is true, and, alas! so likewise is the assertion of the Committee for the Prevention of the Demoralisation of Native Races by the Liquor Traffic, that “there is now abundant evidence to show that ‘drink’ and ‘the drink traffic’ have become a chief stumbling-block in the way of the reception of the Gospel by heathen and Mohammedan races.” The mischief partially vetoes the suggested amends. About this there can be no sort of doubt. In the controversy regarding the relative progress of Christianity and Mohammedanism which grew out of the now famous paper read by Canon Taylor to the Church Congress of 1887, it was again and again stated that one of the principal reasons why Islamism spreads in Asia and in Africa is, that total abstinence is an integral part of the creed of Islam, while the extension of European influence visibly brings about the ruin of the peoples who come in contact with the average trader’s shameless travesty of Christianity. Referring to Bengal some time ago, the *Calcutta Englishman* said: “There is not a greater reproach to the British Government than the deterioration which the public morals have undergone from this *Evidence of mischief to missions.*

cause"—i.e., the legalised drink traffic. "To the object of increasing the revenue all other considerations have been systematically sacrificed. Under the Mohammedan Government dealing in strong drink was an offence promptly and severely punished; under the English the sale is everywhere encouraged."

*Testimony of
Rev. H.
Goldie.*

Says a missionary who for forty years has laboured in Old Calabar (Rev. Hugh Goldie): "The land is flooded by the fire-water poured upon the coast. . . . The poor people have no strength to resist. . . . They have the ready reply (to remonstrance), 'Why do you white men bring it to us if it is evil? We do not make it.' What prospect of speedy or extensive success has the Gospel when it has to encounter this terrible evil, as well as the degraded heathenism of the people? *And the former is an evil more difficult to overcome than the latter.*"

*A stained
escutcheon.*

It is on record that an Archdeacon of Bombay once declared that for every Christian whom we had made in India we had made a hundred drunkards. Is it any wonder that missionary enterprise is heavily handicapped? Must not the verdict be, Wounded in the house of its friends? Christian England stands reprovèd before the untutored heathen. What shall be her fate except she repent, for the hour will surely come in which the Avenger of the poor and helpless will challenge the fruits of her stewardship? May God in His mercy prosper temperance work

in our midst, give us thus a cleaner record at home, and awaken the whole nation to the enormities practised in its name! Then will the drink traffic disappear throughout the empire, and with it will vanish the most formidable current hindrance to the preaching of the Gospel.

Again, strong drink acts indirectly—though in complete accordance with its character—as an enemy to every religious and philanthropic movement, by diminishing the financial resources available for the prosecution of Christian work. Upon this point we may not dwell. A paragraph must suffice.

A statistician has lately shown that about *Statistics once again.* sevenpence halfpenny per head is spent by the Christian Church annually for the conversion of the world, while, as we have ourselves determined, the sum of £3, 7s. 6½d. is spent per head yearly on intoxicating liquors in this kingdom. Assuming the correctness of the former figure, we find that the average expenditure per head for every man, woman, and child in the country *weekly* upon strong drink is rather more than twice the average amount paid *per annum* by nominal constituents of the Christian Church for the furtherance of missions. Remembering what drink does for its dupes, and what missions properly organised and supported might do for the world, this is a most saddening comparison. One is almost driven to ask if Great Britain has a valid claim to be considered a Christian land at all. And thus

by waste, that impartially defrauds every good work of the help which is its due, alcohol again proves its sleepless antagonism to all manifestations of brotherly kindness—of the warm, self-abnegating love to God and man, which is religion pure and undefiled.



CHAPTER II.—QUESTIONS OF PRINCIPLE.

*Acts, and not
opinions, the
proof of prin-
ciple.*

THE great function of knowledge is not merely to enlighten the mind, but also to determine the action of the will. And the mass of truly disquieting evidence which reveals strong drink as a universal agent of material and moral degeneration is not fairly confronted unless the need for a change in personal habit is examined in this lurid light. Christians above all men fail in their duty if they decline to place their own lives on trial at the bar of conscience. They are bound before high Heaven to inquire if they are guiltless of complicity in the nameless abominations brought into existence through the medium of alcohol, in the scattering abroad by drink of the fair fruits of prayer and toil, in the heaping of contempt for alcohol's sake, upon the Gospel and its messengers in heathen and Mohammedan communities, in the restraining of gifts for their Master's service. There are still curses for those who sit at ease in Zion and care not that their neighbours perish and that vice tramples virtue under foot.

No case for total abstinence could be complete without the uncompromising assertion of its warrant in the deepest principles of the religion of Christ. In the rivalry between the two opposing policies of true temperance and pseudo-moderation, many considerations of practical expediency are involved. To a number of these we have given careful attention. But this is not all the commendation of total abstinence. Principles are at stake in the controversy, and none who claim to be friends of Christianity may safely or honourably ignore the fact.

Christianity warrants total abstinence.

Freely let it be granted that the New Testament—the treasury of Christian ethics—does not anywhere contain in so many words an injunction to abstain from intoxicating liquors. The technical concession can have no value whatever when the whole tenor of the teaching of the volume is opposed to any and every influence that can degrade and debase the bodies, minds, and souls of the children of men ; when almost its every line inculcates principles and shadows forth ideals of life which even the drinker, bound to his idol, feels in his heart to be irreconcilable with the alcoholic habit ; and when the great light that beams from those sacred pages centres in the Cross—now to all the ages an emblem of infinite self-sacrifice.

There is no personal virtue that does not flourish more securely where total abstinence is practised, and no relative duty that is not better performed. Christianity teaches the true dignity of the body.

Christian regard for the body.

And to preserve these living temples from unnecessary and wanton defilement, from the taint of self-induced disease, and from the humiliation of a vicious slavery, is regarded, in the direct precept and in the implied instruction of Christ and His Apostles, as an obligation binding upon all. Alas! that evil passions and selfish desires should so often obscure the wholesome truth that the religion of Jesus Christ has respect and care for men's bodies as well as for their souls. Alcohol, whether imbibed in small quantities or great, tends to injure the body; and in thousands of cases it is an avenue for pollution of the most gross and varied kinds. If continually absorbed into the system it forges for its victim galling and shameful chains. All this is contrary to the spirit of the Christian principle that even the casket of that inestimable jewel, the soul, should be preserved from every malicious and soiling touch.

*Advance in
moral graces
hindered by
alcohol.*

Christianity demands that man shall attend to his own moral and spiritual growth, and develop ever fresh and vigorous capacity for service to God and to humanity. This is explicitly urged in the New Testament, and with earnest iteration. The Lord bade His disciples be perfect. The writer of epistle after epistle pleads for continuance in well-doing, for increase in holiness of life, and for the multiplication of good works.

But strong drink does its evil utmost to mar the beauty of Christian character, and to paralyse the hand of the Christian labourer. It robs the fold :

more declensions that wring faithful, loving hearts with pain are to be traced to this cause than to any other. Mistaken views of "moderation" have paved the way for ever closer approximation to the usages of a careless and largely corrupt society, and a shameful fall is the result. Again, the whole influence of alcohol is found arrayed against an elementary principle of the religion of the Cross.

Once more, Christianity, as published in the words and works of its Founder and of its first inspired missionaries, lays down a golden rule of love for all men, and it teaches that none can be accounted followers of the Crucified One who will not for His dear sake carry a cross of self-denial.

*The GOLDEN
RULE.*

In view of the social phenomena of our times, knowing what is past all denying,—that shame, sorrow, suffering, and death, in degree that is unspeakable, in measure that no symbols can express, are the imposition of alcohol upon a groaning, darkened world; realising that for filthy lucre the poor are sold to the destroyer, and that to bolster up an iniquitous monopoly hundreds of thousands of once upright, happy men and women are committed to a worse than Egyptian bondage, is it possible to deny that upon the Christian total abstinence is enforced as a duty? Loyalty to the Master demands the abandonment of all association with the grim curse that smites here the stalwart sire, the prop and mainstay of a peaceful home, there the girl-wife whose beauty is her husband's pride, yonder the only son of a widowed mother

*How drink
defies it.*

who has no other human stay ; here the man of title, there the artisan ; here the young heir to a great estate, there the old pensioner, whose life's sun is setting. Obedience to the cardinal religious principles of love to all the children of the common Father in Heaven, and of self-abnegation as the one sufficient proof of that love, forbids any partnership with the evil drug which is making on every hand degraded outcasts of the once pure and respected, criminals of the once honest, paupers of the wealthy, maniacs and imbeciles of the once sane, shrewd, and clever. There can be no lawful concordat between this supreme iniquity and those who would be called citizens of the Kingdom which Christ died to establish. Says Archbishop Benson :

*Opinion of
Archbishop
Benson.*

“ In no past time had the preachers of the Gospel to contend with the demon of drink as they have in this age of ours. To accept the Gospel, to live conscientiously under the precepts of the Gospel, to be followers of Christ, to be built on the foundation of the apostles and prophets, to imitate our Master, and to drink !—the two things cannot exist.”

It is no light question that may be debated or dismissed at pleasure which in this mighty struggle of light and darkness is brought to every man's table, and into every woman's boudoir. Where total abstinence is rejected it is not less a decision of vast and far-reaching moment that the whole argument, for or against, is deliberately set aside,

and custom only, *as* custom, subscribed to. The *A momentous election:* issues concern no negative article which the cast of a die may gaily accept or as gaily discard. The essential quality of intoxicants destroys every excuse for handling this topic with levity or indifference. None are so ignorant as to be unaware that alcohol inflames dormant appetites, rouses the hyena of passion, enslaves the senses, and deflects the judgment. And only the wilfully blind can fail to see that it does this for many who little dream of becoming its victims.

Every individual must choose for himself and *This inevitable.* for herself upon which side the weight of authority and example shall be thrown. Evasion of responsibility is impossible. Our lives are all letters read of our fellows. Even the most isolated and obscure is some one's exemplar—perhaps a child's. If the teachings of the New Testament shape the pattern it shall be well. For then word and example will assuredly disseminate the blessed principles of total abstinence. The great Apostle of the Gentiles is *The example of St. Paul.* a brilliant illustration of the quick and practical recognition of the promptings of lofty Christian motive. He would neither eat flesh nor drink wine, nor have dealings with any ordinance or custom which might cause a brother to stumble or falter or receive occasion of offence. And in this we see more than the native nobleness of Greatheart, more than the generous idiosyncracies of St. Paul. It is the teaching inwrought into the very texture of all Scripture producing its

normal fruit of a blameless walk and conversation. What St. Paul conceived to be his duty is, we dare to say, even more emphatically the duty of those who, eighteen hundred years after, climb the same narrow path of righteousness. The conditions of the test have changed ; but not the test itself. That is ever with us, and, in the midst of the appalling chaos of drink-caused sin, disease, and misery that in Christian England brings hot tears of shame and anguish to the eyes of the thwarted Christian worker is surely more insistent than in old semi-barbarian Rome. It needs no great stretch of imagination to suppose St. Paul pleading in the modern Babylon with all the fire and force of his rugged eloquence against the pestilence that walks at noon-day, and the destruction that blights with a false benediction. He would hold no communion with Belial. He would give no quarter to specious reasons in behalf of a patent and hideous curse.

*Claims that
must be
honoured :
the reasons.*

It may be that total abstinence is irksome, not on account of the seductive nature of intoxicating liquors,—that would be to the prudent a conclusive argument for forsaking them—but because of social ties, of prejudices that resent “quixotism,” of friendships with friends of the liquor trade. Such difficulties are a valid claim on Christian sympathy, but they cannot excuse moral cowardice. We maintain as strongly as words may, that total abstinence is the only rule of conduct which is compatible with the under-

lying and all pervading principles of the religion of Christ. Because the cross is heavy it may not be abandoned. It is the drinking that makes the drunkards, and whoever touches the accursed thing does his or her part towards perpetuating every evil of which drink is the parent. To drink "moderately" is to cast one more responsible human being's influence into the scale that holds measureless infamy and wrong. It may appear most unlikely that any companion will immediately suffer, and yet the mischief that is not suspected may ensue. The tapestry of existence is woven of linked lives. Only death can break those bands asunder.

But to submit to calumny for truth's sake, for Christ's sake, for some little one's sake—this is the height of Christian manhood, the flower of Christian profession. And they who serve the truth heedless of consequences near or remote, shall be vindicated by the ultimate triumph of truth. Wisdom continues to be justified of her children. To help in extending total abstinence is to help in clothing the naked, in feeding the hungry, in delivering the prisoner. And this is eminently the Christian's work. It is to tread thus far in a path of self-denying benevolence, and such labours and such fidelity the Master will surely own and bless.

CHAPTER III.—OBJECTIONS REFUTED.

THE appeal *in foro conscientiæ* must ever be decisive for men and women who desire to live a true and worthy life, and the defenders of strong drink are compelled to acknowledge as much. The struggle is crucial ; and instinctively feeling this, the enemy has sought in every direction for arguments that shall at least obscure the issue, for sophistries that may prevent the logical translation of principle into action, for pleas of extenuation. No real success has rewarded or can reward the anxious efforts of the advocates of alcohol. The client is too notorious a culprit.

But it may be well in closing the section to refer very briefly to the feeble casuistry by which it is sought to pervert judgment and obstruct the decision for total abstinence.

It is said that to abstain from intoxicants is to abdicate the high prerogative of Christian liberty and to confess moral weakness.

*Where true
liberty resides.*

As a simple matter of fact the abstainer always has it within his power to take strong drink,—and will have until the liquor traffic is utterly and happily abolished ; while in cases numbered by tens of thousands drinkers have confessedly lost the power to leave it alone. The inebriate has sold his freedom for liquid destruction ; the abstainer comes to a resolution by the light of reason, and abides by it voluntarily. Alcohol

possesses the ability to create an appetite for itself in the human system; and the dangerous phenomenon is produced *in its degree* in the cases of those who never consciously drink to excess. From these degrading trammels the total abstainer is free. Surely it is clear that the drinking claim to possession of exceptional liberty cannot be made good. Neither is abstinence an admission of moral infirmity. The man who does not put his hand into the fire lest he should be burned, who shuns the neighbourhood of a cesspool lest he should contract fever, who declines to leave his house open to visitors all and sundry lest he should be robbed, is not on these grounds deemed a weakling. And science teaches irrefutably that strong drink burns, is raging, steals vigour from the frame and gold from the purse. To shun it is wisdom, not cowardice.

This particular argument of the adversary sometimes assumes a slightly different shape. It is put as a question. Why should we resign an innocent pleasure when we have no personal evidence that it is injuring us, and when by carefully regulating our indulgence we may positively strengthen the virtue of temperance?

The plausible inquiry takes far too much for granted. Drinking is *not* an innocent pleasure,—root and branch it is an upas tree that every true man is bound to strike at. And not until the standard of “moderation” is discovered will any rules for indulgence have the smallest value.

Again, resistance to temptation is the same in essence in the total abstainer's case, as in that of the individual who merely abstains from drinking in excess. The one sensibly resists the very beginnings of evil; the other elects to resist (if he can) at some undetermined point in the progress of evil.

Not asceticism.

Another objection would pretend to dismiss total abstinence with a sneer as asceticism, as a plan of conduct opposed at once to the dictation of every natural impulse, to the rudiments of Gospel teaching, and to the example of the Saviour. There is no solid reasoning at the back of this ridiculous charge. Asceticism is a policy of buffets for the body, of neglect of personal comfort, of carelessness for the physical health. Total abstinence, on the direct contrary, is proved by all experience and observation to be a policy of regard and protection for every part of man's complex organisation, and a practice which uniformly furthers his material prosperity. The motive of asceticism is self-correction; one chief motive of total abstinence is self-preservation. Beyond a faint, superficial resemblance of method there is absolutely nothing in common between these two lines of conduct.

Reductio ad absurdum.

Yet again, it is urged that sobriety is the true Christian virtue, and that to exhibit it there must be opportunity. Some have gone so far in fatuous rashness as to aver that temperance—by which they mean “moderate” drinking—is a nobler life

principle than total abstinence. We have elsewhere shown that, in strict logical interpretation, temperance is, in part, abstinence from useless agents of injury. What, however, is really the gist of this argument? That drinking which just stops short of drunkenness is better than drinking—as of water or milk—which has in it no risk whatever of conducting to inebriety; that man ought to wilfully enter into temptation in order to prove his superiority thereto. We submit that this is a fair and just rendering of the proposition. Absurdity is stamped upon its face. And the laws that are written by the finger of the Creator on man's mind and body declare, with an emphasis that annihilates the fallacious contention, that no full and entire sobriety is compatible with the existence of the drinking habit. Alcohol *always* disturbs the fine equipoise between mind and matter, and occasions the initial phenomena of intoxication. Besides, what of the sobriety of others? How many sons have fallen through the glass on a parent's table. How many daughters have gone astray through the influence of misleading home example? Out of every six "moderate" drinkers, one is sure to be shortening his or her life through the medium of alcohol. The plague will never be stayed while Christians, from indolence or misconception, hesitate to plead for and practise total abstinence.

Finally, it is argued that total abstinence is an exhibition of lack of confidence in the power of

Total abstinence the auxiliary and not the supplanter of religion.

Divine grace to restrain the Christian from stumbling into flagrant sin. It is nothing of the kind. No insuperable difficulty would be found in fashioning a strong argument to convict the Christian "moderate" drinker of something very like presumption in daily praying for rescue from temptation, while daily walking by his own choice on slippery paths. But even to seem to prove that the total abstainer does not trust his God in the sore strife with foes many and terrible is impossible. If he determines to have one foe the less to watch at close quarters, it is tribute to his prudence and fidelity; if he recognises that the great barrier to the advance of Christian truth is strong drink, and determines to do what in him lies to cast out the demon of intemperance, it is evidence of enlightenment and enthusiasm. The grace of the Lord inspires not foolhardiness, but the steady courage of self-abnegation; not indifference to the perils within and without, but watchfulness against danger; not contempt for powers of evil, but the resolute will to overcome them. And it cannot be forgotten in this connection that the appetite for intoxicating liquors, whether inherited or implanted by the habit of indulgence, is a physical factor in the problem. The appetite may smoulder on in the system, and obtain little attention for years; and then in some hour of crisis lift its deadly fangs and strike. Total abstinence will certainly prevent any such disastrous *dénouement*. And because it is a safe and salu-

tary personal observance and a noble example for others, Reason, giving her verdict in full harmony with Revelation, authorises and prescribes this rule for all who seek to offer body, intellect, and spirit a living sacrifice, a reasonable service, to their glorified Redeemer.

The demand of Philanthropy and the plea of Religion are one and the same—that strong drink shall be banished from the home and abjured in the life. The teachings of experience and the precepts of Christianity, gathering new insistence with wider knowledge and fuller understanding, concur in pressing home to heart and conscience the claims of total abstinence.

The two competing policies are before the reader. *A final contrast.* What remains? What final summary shall be given? Step by step we have followed the dark indictment of alcohol, have seen that, from an ignoble beginning, a ruthless destroyer has come forth to run a course marked everywhere by wrecks of health, of strength, of purity, of honour, of reputation, of hope, of ambition, of intellect, of industry, of competence, of home happiness, of family joy, of all that makes life worth living, and finally, of the battered hulk of a miserable existence. We have found science banning alcohol, economy condemning it, education crying for its removal, and religion pronouncing its irreversible doom.

And conversely, we have seen that total abstin-

ence is the friend of physical and mental vigour, the only sure preventive of inebriety and of transmitted alcoholism, one of the truest bulwarks of morality, an ally of civilisation and of every species of benevolent enterprise, the herald of evangelisation, and the handmaid of Christianity. We have attended to its vindication by science, to its commendation by economy, to its eager adoption by the genius of education, to the God-speed given it in the august name of religious truth.

*A triple
appeal.*

What last word shall be said ? To the indifferent or the yet openly hostile one of warning. Those who sow the wind reap the whirlwind. To-day excess may seem ludicrously improbable ; to-morrow it may be a frightful fact. And if no cry of personal despair is ever wrung from your lips, it may ascend from the lips of child or grand-child, and charge you with the crime of Cain. From every side there does arise the wail of captives whom drink oppresses, of disconsolate ones whom drink has bereaved. Weigh well the responsibility of a heartless neglect.

To those who halt between two opinions, one of earnest persuasion. Search and see if the half has been told of the mischiefs effected, and the enormities committed by alcohol. If it is a trivial sacrifice to abandon intoxicating liquors, do it for humanity's sake ; if it is a hard sacrifice, do it for the sake of your own security, peace, and happiness. Remember that in things intrinsically evil, there can be no moderation.

And to the fully persuaded, the worker by example and by advocacy in this beneficent reform, a word of cheer. Stand fast in pledged antagonism to the monster curse of intemperance, and you shall surely increase the chances and speed the day of final victory. Already faint streaks of morning gleam on the eastern hills. The darkness is deep, but it is also doomed. The warfare may be difficult, open to misrepresentation, and waged apparently against depressing odds ; but there is at its heart the great, grand hope that in the not so distant future total abstinence will be the rule and not the exception amongst all civilised peoples.



VIII.

NOTES.

Page 31. There is a considerable family of the alcohols, all of which conform to type, and are produced by fermentation. Besides ethylic alcohol (C_2H_6O) and methylic alcohol (see page 30), or "wood spirit," there are many other alcohols, the best known of which are propylic, butylic, amylic, and caproylic. Professor Gladstone observes that it is by a mere accident that ethylic alcohol came into common use—it might have been another.

Page 36. Common alcohol (ethylic) is compounded of two parts carbon, six parts hydrogen, and one part carbon.

Page 40. Dr. Alfred Carpenter says ("Alcoholic Drinks not Necessaries of Life") :

"It is a curious, and yet a striking and significant fact that the true effect (of alcohol) is signified in the word *Intoxication*. The meaning of this word is poisoning, and such is actually the

effect of the inhibition of alcohol when sufficient has been taken to produce the manifestation of its power upon nerve matter."

Page 88. "This is equivalent to 83·2 inch oz. of work per stroke. This requires a lift of nearly 14 inches if the work done is only a lift of 6 oz., per stroke."—Dr. B. W. Richardson.

Page 143. These two narratives by Dr. Cheyne are quoted by Dr. B. W. Richardson, in his little book "Drink and Strong Drink." (Glasgow, 1882.)

Page 146. Captain Kennedy, intrusted by Lady Franklin with the command of one of the Franklin Search Expeditions, was himself a total abstainer, and sailed with an abstaining crew, nineteen in number. Every one returned safe and sound, in spite of cold, hardship, and heavy labour.

Page 180. On the occasion of a valuation of the London Grand Division of the Sons of Temperance in 1881, the actuary reported : "The liability to become sick is less with your members than with the Foresters' Friendly Society ; with the latter the liability to become sick increases with age, but the same law does not appear to hold good with your society."

Page 211. Mr. W. S. Caine, M.P., speaking in Shoreditch, 20th November, 1883, said :

“The question of housing the London poor is one, I think, in which Parliament can help, not by building houses at the cost of the State, but by removing as far as possible the causes which result in the evils now being so widely discussed. Drink makes the poor live where they do.”

Page 211. In April, 1888, a conference of masters of workhouses and relieving officers was again held (under the auspices of the National Temperance League), in Exeter Hall, “for the purpose of considering how far the drinking habits of the people produce poverty and throw them out of employment.” The Bishop of London (Dr. Temple) presided. Among other testimonies given—Mr. R. Clinton, Master of Princes Road Workhouse, Lambeth, said that in his experience 60 per cent. of pauperism was due to drink; Mr. G. Aylward, Kensington, said that twenty-five years’ experience showed him that if the working-classes could be kept from the public-houses his occupation would be gone; Mr. C. J. Hunt, relieving officer, Marylebone, said that but for intemperance he would have to join the unemployed; a speaker, whose name was not given, said he had been in the service twenty years, and had been called to give relief to only one teetotaler, and that man was blind, &c. &c.

Page 264. Mrs. J. E. Foster, of Iowa, U.S., addressing a gathering of the British Women’s Temperance Association in the Memorial Hall,

Farringdon Street, 10th November, 1887, said :
“ In seventeen States the schools use Dr. Richardson’s text-books. In none of the schools are the old books teaching that alcohol is a necessary stimulant allowed.”

THE END.

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